



# Satellite® P15 Series User's Guide

If you need assistance:

- ❖ Toshiba Global Support Centre  
Calling within the United States (800) 457-7777  
Calling from outside the United States (949) 859-4273

For more information, see “[If Something Goes Wrong](#)” on page 218 in this guide.

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**A WARNING**

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. ***Wash hands after handling.***

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## Model: Satellite P15 Series

### ReWritable CD/DVD Drives

The computer system you purchased may include a ReWritable CD and/or DVD drive(s), among the most advanced data storage technologies available. As with any new technology, you must read and follow all set-up and usage instructions in the applicable user guides and/or manuals enclosed. If you fail to do so, this product may not function properly and you may lose data or suffer other damage. TOSHIBA AMERICA INFORMATION SYSTEMS ("TOSHIBA"), ITS AFFILIATES AND SUPPLIERS DO NOT WARRANT THAT OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR FREE. YOU AGREE THAT TOSHIBA, ITS AFFILIATES AND SUPPLIERS SHALL HAVE NO RESPONSIBILITY FOR DAMAGE TO OR LOSS OF ANY BUSINESS, PROFITS, PROGRAMS, DATA OR REMOVABLE STORAGE MEDIA ARISING OUT OF OR RESULTING FROM THE USE OF THE PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.

### Protection of Stored Data

For your important data, please make periodic back-up copies of all the data stored on the hard disk or other storage devices as a precaution against possible failures, alteration, or loss of the data. **IF YOUR DATA IS ALTERED OR LOST DUE TO ANY TROUBLE, FAILURE OR MALFUNCTION OF THE HARD DISK DRIVE OR OTHER STORAGE DEVICES AND THE DATA CANNOT BE RECOVERED, TOSHIBA SHALL NOT BE LIABLE FOR ANY DAMAGE OR LOSS OF DATA, OR ANY OTHER DAMAGE RESULTING THEREFROM. WHEN COPYING OR TRANSFERRING YOUR DATA, PLEASE BE SURE TO CONFIRM WHETHER THE DATA HAS BEEN SUCCESSFULLY COPIED OR TRANSFERRED. TOSHIBA DISCLAIMS ANY LIABILITY FOR THE FAILURE TO COPY OR TRANSFER THE DATA CORRECTLY.**

### Critical Applications

The computer you have purchased is not designed for any "critical applications." "Critical applications" means life support systems, medical applications, connections to implanted medical devices, commercial transportation, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage. **ACCORDINGLY, TOSHIBA, ITS AFFILIATES AND SUPPLIERS DISCLAIM ANY AND ALL LIABILITY ARISING OUT OF THE USE OF THE COMPUTER PRODUCTS IN ANY CRITICAL APPLICATIONS. IF YOU USE THE COMPUTER PRODUCTS IN A CRITICAL APPLICATION, YOU, AND NOT TOSHIBA, ASSUME FULL RESPONSIBILITY FOR SUCH USE.**

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## FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ❖ Reorient or relocate the receiving antenna.
  - ❖ Increase the separation between the equipment and receiver.
  - ❖ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
  - ❖ Consult the dealer or an experienced radio/TV technician for help.
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### NOTE

Only Peripherals complying with the FCC Class B limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by Toshiba is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer's or expansion unit's serial port, parallel port, monitor port, USB port, PS/2 port®, i.LINK® port and microphone jack. Changes or modifications made to this equipment not expressly approved by Toshiba or parties authorized by Toshiba could void the user's authority to operate the equipment.

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- ❖ This device may not cause harmful interference.
- ❖ This device must accept any interference received, including interference that may cause undesired operation.

Contact:

Toshiba America Information Systems, Inc.  
9740 Irvine Blvd.  
Irvine, CA 92618-1697  
(949) 583-3000

## Industry Canada Requirement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## FCC Requirements

The following information is pursuant to FCC CFR 47, Part 68 and refers to internal modems.

## Installation

When you are ready to install or use the modem, call your local telephone company and give them the following information:

- ❖ The telephone number of the line to which you will connect the modem.
- ❖ The FCC registration number of the modem.
- ❖ The ringer equivalence number (REN) of the modem, which is 0.6B.

The modem connects to the telephone line by means of a standard jack called the USOC RJ11C.

## Type of Service

Your modem is designed to be used on standard-device telephone lines. Connection to telephone company-provided coin service (central office implemented systems) is prohibited. Connection to party lines service is subject to State tariffs. If you have any questions about your telephone line, such as how many pieces of equipment you can connect to it, the telephone company will provide this information upon request.

## Telephone Company Procedures

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

## If Problems Arise

If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you

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in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC. In the event repairs are ever needed on your modem, they should be performed by Toshiba Corporation, Toshiba America Information Systems, Inc. or an authorized representative of Toshiba.

## Disconnection

If you should ever decide to permanently disconnect your modem from its present line, please call the telephone company and let them know of this change.

## Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity or individual sending the message and the telephone number of the sending machine or such business, other entity or individual.

In order to program this information into your fax modem, you should complete the setup for your fax software before sending a message.

## Instructions for IC CS-03 certified equipment

- 1** NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

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Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

- 2 The user manual of analog equipment must contain the equipment's Ringer Equivalence Number (REN) and an explanation notice similar to the following:

The Ringer Equivalence Number (REN) of this device can be found on the label affixed to your computer.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

- 3 The standard connecting arrangement (telephone jack type) for this equipment is jack type(s): USOC RJ11C.

## Wireless Interoperability

The TOSHIBA Wireless LAN Mini PCI Card products are designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS) radio technology, and is compliant to:

- ❖ The IEEE 802.11 Standard on Wireless LANs (Revision A/B), as defined and approved by the Institute of Electrical and Electronics Engineers.
- ❖ The Wireless Fidelity (WiFi) certification as defined by the WECA Wireless Ethernet Compatibility Alliance.

## Caution

Bluetooth™ and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection.

If you should experience any such problem, immediately turn off either one of your Bluetooth™ or Wireless LAN.

Please contact Toshiba PC product support on Web site <http://www.toshiba-europe.com/computers/tnt/bluetooth.htm> in Europe or

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<http://www.pcsupport.global.toshiba.com> in the United States for more information.

## Caution

This device is restricted to indoor use due to its operation in the 5.15 to 5.85 GHz frequency range.

## Wireless LAN and your Health

Wireless LAN products, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by Wireless LAN devices however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Wireless LAN is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Wireless LAN may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- ❖ Using the Wireless LAN equipment on board of airplanes, or
- ❖ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the Wireless LAN device prior to turning on the equipment.

## Regulatory Information

The TOSHIBA Wireless LAN Mini PCI Card must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. This device complies with the following radio frequency and safety standards.

## Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website [www.hc-sc.gc.ca/rpb](http://www.hc-sc.gc.ca/rpb). The RF device shall not be

co-located with any other transmitter that has not been tested with this device.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

## Europe – EU Declaration of Conformity

- ❖ This device complies with the essential requirements of the R&TTE Directive 1999/5/EC with essential test suites as per standards:

EN 60950 Safety of Information Technology equipment

ETS 300 328 Technical requirements for radio equipment

ETS 300 826 General EMC requirements for radio equipment.

België/ Belgique:	<p>For outdoor usage only channel 10 (2457 MHz) and 11 (2462 MHz) is allowed.</p> <p>For private usage outside buildings across public grounds over less than 300m no special registration with IBPT/BIPT is required. Registration to IBPT/BIPT is required for private usage outside buildings across public grounds over more than 300m. An IBPT/BIPT license is required for public usage outside building. For registration and license please contact IBPT/BIPT.</p>
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	Gebruik buiten gebouw alleen op kanalen 10 (2457 MHz) en 11 (2462 MHz). Voor privé-gebruik buiten gebouw over publieke grond over afstand kleiner dan 300m geen registratie bij BIPT/IBPT nodig; voor gebruik over afstand groter dan 300m is wel registratie bij BIPT/IBPT nodig. Voor publiek gebruik buiten gebouwen is licentie van BIPT/IBPT verplicht. Voor registratie of licentie kunt u contact opnemen met BIPT.
	L'utilisation en extérieur est autorisé sur le canal 10 (2457 MHz) et 11 (2462 MHz). Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de l'IBPT est requise. Pour une utilisation publique à l'extérieur de bâtiments, une licence de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.
Deutschland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Anmeldung im Outdoor-Bereich notwendig, aber nicht genehmigungspflichtig. Bitte mit Händler die Vorgehensweise abstimmen.
France:	Restricted frequency band: only channels 10 and 11 (2457 MHz and 2462 MHz respectively) may be used in France. License required for every installation, indoor and outdoor installations. Please contact ART for procedure to follow.
	Band de fréquence restreinte: seuls les canaux 10 à 11 (2457 MHz et 2462 MHz respectivement) doivent être utilisés en France. Toute utilisation, qu'elle soit intérieure ou extérieure, est soumise à autorisation. Vous pouvez contacter l'Autorité de Régulation des Télécommunications ( <a href="http://www.art-telecom.fr">http://www.art-telecom.fr</a> ) pour la procédure à suivre.
Italia:	License required for indoor use. Use with outdoor installations not allowed.
	E' necessaria la concessione ministeriale anche per l'uso interno. Verificare con i rivenditori la procedura da seguire. L'uso per installazione in esterni non e' permessa.

Nederland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Licentie verplicht voor gebruik met buitenantennes. Neem contact op met verkoper voor juiste procedure.

## USA-Federal Communications Commission (FCC)

This device complies with Part 15 of FCC Rules. Operation of the devices in a Wireless LAN System is subject to the following two conditions:

- ❖ This device may not cause harmful interference.
- ❖ This device must accept any interference that may cause undesired operation.

TOSHIBA is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this TOSHIBA Wireless LAN Mini PCI Card, or the substitution or attachment of connecting cables and equipment other than specified by TOSHIBA.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

## Caution: Exposure to Radio Frequency Radiation

The Toshiba Wireless LAN Mini PCI Card will be installed with one of two types of antennas. The both of antenna types, when installed are located at the upper edge of the LCD screen.

For both antennas, the radiated output power of the TOSHIBA Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits. Nevertheless, the TOSHIBA Wireless LAN Mini PCI Card shall be used in such a manner that the potential for human contact during normal operation is minimized. In normal operating configuration, the LCD in the upright position, the distance between the antenna and the user should not be less than 20 cm. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Antenna(s) used in 5.15 GHz to 5.25 GHz frequency band must be integral antenna which provide no access to the end user.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

## Caution: Radio Frequency Interference Requirements

This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range. FCC requires this product to be used indoors

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for frequency range 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users of the 5.25 GHz to 5.35 GHz and 5.65 GHz to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

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**NOTE**

The above Caution information applies to products that operate with an 802.11a device.

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## Taiwan

Article 14 Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.

Article 17 Any use of low power radio frequency electric machinery shall not affect the aviation safety and interfere with legal communications. In event that any interference is found, the use of such electric machinery shall be stopped immediately, and reusing of such products can be resumed until no interference occurs after improvement.

The legal communications mentioned in the above item refer to radio communications operated in accordance with telecommunication laws and regulations.

Low power radio frequency electric machinery shall resist against interference from legal communications or from industrial, scientific and medical radio emission electric machinery.

## Using this equipment in Japan

In Japan, the frequency bandwidth of 2,400 MHz to 2,483.5 MHz for second generation low-power data communication systems such as this equipment overlaps that of mobile object identification systems (premises radio station and specified low-power radio station).

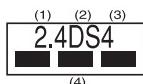
### 1. Sticker

Please put the following sticker on devices incorporating this product.

- In the frequency bandwidth of this equipment, industrial device, scientific device, medical device like microwave oven, licensed premises radio station and non-licensed specified low-power radio station for mobile object identification system (RF-ID) that is used in product line of factories,(Other Radio Stations) are used.
- 1 Please make sure before using this equipment that no Other Radio Stations are used in the neighborhood.
  - 2 In case that RF interference occurs to Other Radio Stations from this equipment, please change promptly the frequency for use, place to use, or stop emitting Radio.
  - 3 Please contact TOSHIBA Direct PC if you have a problem, such as interference from this equipment to Other Radio Stations

## 2. Indication

The indication shown below appears on this equipment.



- 1 2.4: This equipment uses a frequency of 2.4 GHz.
- 2 DS: This equipment uses DS-SS modulation.
- 3 The interference range of this equipment is less than 40m.
- 4 This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz.

It is possible to avoid the band of mobile object identification systems.

## 3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-13-1100

Direct Dial: 03-3457-5916

Fax: 03-5444-9450

## Device Authorization

This device obtains the Technical Regulation Conformity Certification and the Technical Conditions Compliance Approval, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law and the Telecommunications Business Law of Japan.

The Name of the radio equipment: MPC13A-20/R

JAPAN APPROVALS INSTITUTE FOR TELECOMMUNICATIONS EQUIPMENT

Approval Number: D01-1128JP

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TELECOM ENGINEERING CENTER Approval Number: 03NY.A0018,  
03GZDA0017

The following restrictions apply:

- ❖ Do not disassemble or modify the device.
- ❖ Do not install the embedded wireless module into other device.

## Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- ❖ Reorient or relocate the receiving antenna.
- ❖ Increase the distance between the equipment and the receiver.
- ❖ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- ❖ Consult the dealer or an experienced radio/TV technician for help.

Toshiba is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this Toshiba Wireless LAN Mini PCI Card, or the substitution or attachment of connecting cables and equipment other than specified by Toshiba.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

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### NOTE

The following information is dependent on what type of wireless device is in your computer.

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## Approved Countries/Regions for use for the Atheros AR5001X Mini PCI Wireless network adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

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**CAUTION**

Do not use this equipment except in the countries/regions in the following table.

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**NOTE**

This device works on passive scan only.

A peer-to-peer mode is not available in 802.11a and Turbo Mode.

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### 802.11b (2.4GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

### 802.11a (5GHz)

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Ireland	Italy	Liechtenstein
Luxembourg	Netherlands	New Zealand
Norway	Portugal	Sweden
Switzerland	UK	USA

### Turbo Mode (5GHz)

Canada	USA	
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## Approved Countries/Regions for use for the Intel® PRO/Wireless LAN 2100 3B Mini PCI Adapter

This equipment is approved to the radio standard by the countries/regions in the following table.

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**CAUTION**

Do not use this equipment except in the countries/regions in the following table.

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Argentina	Australia	Austria
Belgium	Brazil	Canada
Chile	Denmark	Finland
France	Germany	Greece
Iceland	Ireland	Italy
Japan	Liechtenstein	Luxembourg
Mexico	Netherlands	New Zealand
Norway	Peru	Portugal
Singapore	Spain	Sweden
Switzerland	UK	Uruguay
USA	Venezuela	

## Approved Countries/Regions for use for the Toshiba Mini PCI Wireless LAN Card

This equipment is approved to the radio standard by the countries/regions in the following table.

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**CAUTION**

Do not use this equipment except in the countries/regions in the following table.

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Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Hong Kong	Iceland	Ireland

Italy	Japan	Liechtenstein
Luxembourg	Malaysia	Netherlands
New Zealand	Norway	Philippines
Portugal	Singapore	Spain
Sweden	Switzerland	Thailand
UK	USA	

## Bluetooth wireless technology Interoperability

Bluetooth™ Cards from TOSHIBA are designed to be interoperable with any product with Bluetooth wireless technology that is based on Frequency Hopping Spread Spectrum (FHSS) radio technology, and is compliant to:

- ❖ Bluetooth Specification Ver.1.1, as defined and approved by The Bluetooth Special Interest Group.
- ❖ Logo certification with Bluetooth wireless technology as defined by The Bluetooth Special interest Group.

### **CAUTION**

Bluetooth wireless technology is a new innovative technology, and TOSHIBA has not confirmed compatibility of its Bluetooth™ products with all PCs and/or equipment using Bluetooth wireless technology other than TOSHIBA portable computers.

Always use Bluetooth™ cards from TOSHIBA in order to enable wireless networks over two or more (up to a total of seven) TOSHIBA portable computers using these cards. Please contact TOSHIBA PC product support on Web site <http://www.toshiba-europe.com/computers/tnt/bluetooth.htm> in Europe or <http://www.pcsupport.global.toshiba.com> in the United States for more information.

When you use Bluetooth™ cards from TOSHIBA close to 2.4 GHz Wireless LAN devices, Bluetooth transmissions might slow down or cause errors. If you detect certain interference while you use Bluetooth™ cards from TOSHIBA, always change the frequency, move your PC to the area outside of the interference range of 2.4 GHz Wireless LAN devices (40 meters/43.74 yards or more) or stop transmitting from your PC. Please contact TOSHIBA PC product support on Web site <http://www.toshiba-europe.com/computers/tnt/bluetooth.htm> in Europe or <http://www.pcsupport.global.toshiba.com> in the United States for more information.

Bluetooth™ and WirelessLAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth™ and WirelessLAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection. If you should experience any such problem, immediately turn off either one of your Bluetooth™ or

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WirelessLAN. Please contact Toshiba PC product support on Web site <http://www.toshiba-europe.com/computers/tnt/bluetooth.htm> in Europe or <http://www.pcbsupport.global.toshiba.com> in the United States for more information.

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## Bluetooth wireless technology and your Health

The products with Bluetooth wireless technology, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by devices with Bluetooth wireless technology however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because products with Bluetooth wireless technology operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Bluetooth wireless technology is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Bluetooth wireless technology may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- ❖ Using the equipment with Bluetooth wireless technology on board of airplanes, or
- ❖ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the device with Bluetooth wireless technology prior to turning on the equipment.

## Regulatory statements

This product complies with any mandatory product specification in any country/ region where the product is sold. In addition, the product complies with the following:

### European Union (EU) and EFTA

This equipment complies with the R&TTE directive 1999/5/EC and has been provided with the CE mark accordingly.

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## Canada-Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.”

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term “IC” before the equipment certification number only signifies that the Industry Canada technical specifications were met.

## Caution: FCC Interference Statement

This device complies with part15 of the FCC rules. Operation is subject to the following two conditions:

- ❖ This device may not cause harmful interference, and
- ❖ This device must accept any interference received, including interference that may cause undesired operation.

Note that any changes or modifications to this equipment not expressly approved by the manufacturer may void the authorization to operate this equipment.

## Caution: Exposure to Radio Frequency Radiation

The radiated output power of the Bluetooth™ Card from TOSHIBA is far below the FCC radio frequency exposure limits. Nevertheless, the Bluetooth™ Card from TOSHIBA shall be used in such a manner that the potential for human contact during normal operation is minimized.

In order to comply with FCC radio-frequency radiation exposure guidelines for an uncontrolled environment, the Bluetooth™ Card from TOSHIBA has to be operated while maintaining a minimum body to antenna which are located on top of LCD distance of 20 cm.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

The Bluetooth™ Card from TOSHIBA is far below the FCC radio frequency exposure limits.

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Nevertheless, it is advised to use the Bluetooth™ Card from TOSHIBA in such a manner that human contact during normal operation is minimized.

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**NOTE**

Changes or modifications made to this equipment not expressly approved by TOSHIBA or parties authorized by TOSHIBA could void the user's authority to operate the equipment.

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## Taiwan

- Article 14 Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.
- Article 17 Any use of low power radio frequency electric machinery shall not affect the aviation safety and interfere with legal communications. In event that any interference is found, the use of such electric machinery shall be stopped immediately, and reusing of such products can be resumed until no interference occurs after improvement.

The legal communications mentioned in the above item refer to radio communications operated in accordance with telecommunication laws and regulations.

Low power radio frequency electric machinery shall resist against interference from legal communications or from industrial, scientific and medical radio emission electric machinery.

## Using this equipment in Japan

In Japan, the frequency bandwidth of 2,400 MHz to 2,483.5 MHz for second generation low-power data communication systems such as this equipment overlaps that of mobile object identification systems (premises radio station and specified low-power radio station).

### 1. Sticker

Please put the following sticker on devices incorporating this product.

In the frequency bandwidth of this equipment, industrial device, scientific device, medical device like microwave oven, licensed premises radio station and non-licensed specified low-power radio station for mobile object identification system (RF-ID) that is used in product line of factories,(Other Radio Stations) are used.

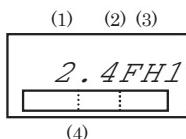
1 Please make sure before using this equipment that no Other Radio Stations are used in the neighborhood.

2 In case that RF interference occurs to Other Radio Stations from this equipment, please change promptly the frequency for use, place to use, or stop emitting Radio.

3 Please contact TOSHIBA Direct PC if you have a problem, such as interference from this equipment to Other Radio Stations

## 2. Indication

The indication shown below appears on this equipment.



- 1 2.4: This equipment uses a frequency of 2.4 GHz.
- 2 FH: This equipment uses FH-SS modulation.
- 3 The interference range of this equipment is less than 10m.
- 4 This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz. It is impossible to avoid the band of mobile object identification systems.

## 3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-13-1100

Direct Dial: 03-3457-5916

Fax: 03-5444-9450

## Device Authorization

This device obtains the Technical Regulation Conformity Certification, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law of Japan.

The Name of the radio equipment: EYXF2CS

TELECOM ENGINEERING CENTER

Approval Number: 01NYDA1305

---

The following restrictions apply:

- ❖ Do not disassemble or modify the device.
- ❖ Do not install the embedded wireless module into other device.

## DVD-ROM, multi-function drive safety instructions

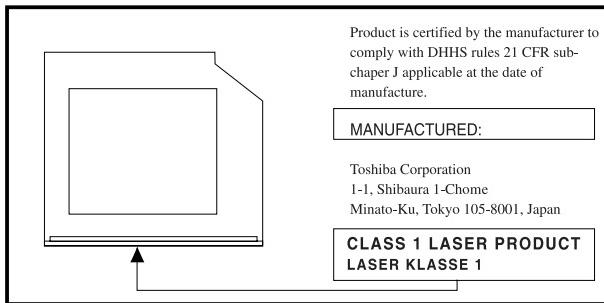
The DVD-ROM and multi-function drives employ a laser system. To ensure proper use of this product, please read this instruction manual carefully and retain for future reference. Should the unit ever require maintenance, contact an authorized service location.

Use of controls, adjustments or the performance of procedures other than those specified may result in hazardous radiation exposure.

To prevent direct exposure to the laser beam, do not try to open the enclosure.

## Location of the required label

(Sample shown below. Location of the label and manufacturing information may vary.)



---

### CAUTION

This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT." To use this model properly, read the instruction manual carefully and keep it for your future reference. In case of any trouble with this model, please contact your nearest "AUTHORIZED service station." To prevent direct exposure to the laser beam, do not try to open the enclosure.

CLASS 1 LASER PRODUCT  
LASER KLASSE 1

Use of controls or adjustments or performance of procedures other than those specified in the owner's manual may result in hazardous radiation exposure.

---

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TouchPad is a trademark of Synaptics, Inc.

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## **Computer Disposal Information**

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal, reuse or recycling information, please contact your local government or the Electronic Industries Alliance at [www.eiae.org](http://www.eiae.org).

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# Introduction

---

Welcome to the world of powerful and portable multimedia computers! With your new Toshiba notebook computer, your access to information can accompany you wherever you go.

Your system comes with the Microsoft® Windows® XP Media Center Edition (MCE) operating system. Your operating system offers exciting features and easy Internet access.

This guide contains information about your operating system and how it functions with your Toshiba computer. For specific information on the software, see the Microsoft booklet that shipped with your computer.

## This guide

This guide introduces the computer's features. You can:

- ❖ Read the entire guide from beginning to end.
- ❖ Skim through and stop when a topic interests you.
- ❖ Use the table of contents and the index to find specific information.

If you are new to computers, or have not used a notebook computer before, read through the first couple of chapters to familiarize yourself with the components of the computer and how to turn it on. After that, seek out whatever interests you most.

## Safety icons

This manual contains safety instructions that must be observed in order to avoid potential hazards that could result in personal injuries, damage to your equipment, or loss of data. These safety cautions have been classified according to the seriousness of the risk, and the icons highlight these instructions as follows:

---

**DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

---

**WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

---

**CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

---

**CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in property damage.

---

**NOTE** Provides important information.

---

## Other icons used

Additional icons highlight other helpful or educational information:



TECHNICAL NOTE: This icon highlights technical information about the computer.



HINT: This icon denotes helpful hints and tips.



DEFINITION: This icon indicates the definition of a term used in the text.

## Other documentation

Your computer comes with the following documentation:

- ❖ This electronic user's guide. Look for the user's guide icon on your desktop or in the DOCS folder on the C: drive.
- ❖ Guides for other programs that may come preinstalled on your computer or that are available for installation on your Recovery media.
- ❖ For accessory information, visit Toshiba's Web site at [toshiba.com](http://toshiba.com).
- ❖ The Microsoft® Windows® operating system documentation which explains the features of the operating system.

---

## Service options

Toshiba offers a full line of service options built around its SelectServ™ limited warranty programs. To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at [pcsupport.toshiba.com](http://pcsupport.toshiba.com).

If you have a problem or need to contact Toshiba, see “[If Something Goes Wrong](#)” on page 218.

# Chapter 1

## Finding Your Way Around

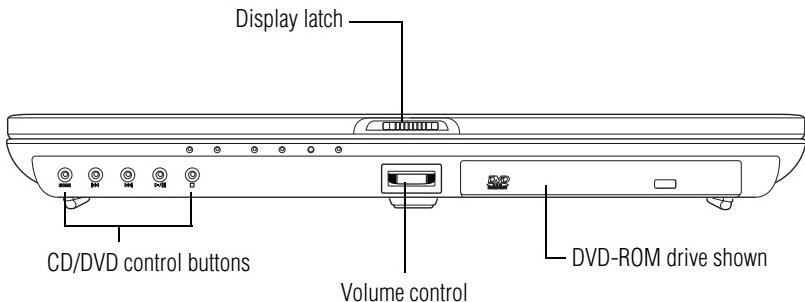
---

This chapter presents a “grand tour” of your notebook computer. It serves as a reference when you need to locate specific parts of the computer.

### Making sure you have everything

Before doing anything else, consult the Quick Start card provided with your system to make sure you received everything. If any items are missing or damaged, notify your dealer immediately. For additional help, see “[If you need further assistance](#)” on page 243.

## Front with the display closed

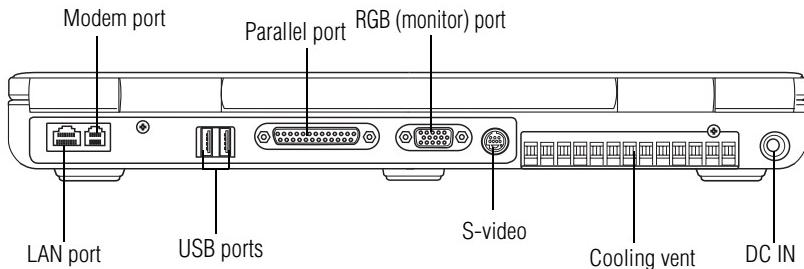


The **display latch** keeps the display panel closed and locked. To open the display panel, slide the display latch to the right and raise the panel.

The **CD/DVD control buttons** allow you to play CDs and DVDs with the computer turned on through the preinstalled operating systems. For more information, see “[CD/DVD control buttons](#)” on page 84.

The **volume control** lets you adjust the sound on your computer. To turn the volume up, turn the dial to the right. To turn the volume down, turn the dial to the left.

## Back



- ☞ The **DC IN** port is where you plug in the AC adapter for either operating the computer on external power or charging the battery.
- ☞ The **RGB (monitor) port** lets you connect an external monitor.
- ☞ The **parallel port** lets you connect a parallel printer or other parallel device, including ECP-compatible devices.
- ☞ The **LAN port** (RJ-45 jack) provides access to a Local Area Network (LAN) using a standard Ethernet® network cable.
- ☞ The **USB (Universal Serial Bus) ports** allow you to connect USB peripherals to your computer.



**DEFINITION:** USB is a peripheral expansion standard that supports a data-transfer rate of up to 480 Mbps for peripherals such as keyboards, pointing devices, and monitors. USB peripherals have a single standard for cabling and connectors. The USB standard allows hot swapping of peripherals.



The **modem port** lets you use a standard RJ-11 telephone cable to connect the modem directly to a standard telephone line. For more information, see “[Connecting the modem to a phone line](#)” on page 92.



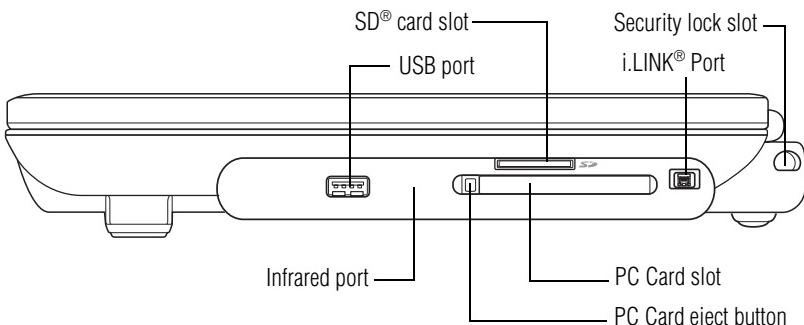
The **S-video port** lets you play DVD video on a projector or TV that accepts video inputs.

The **cooling vent** prevents the computer's central processing unit (CPU) from overheating so that it can continue to perform at maximum speed.

**CAUTION**

To prevent possible overheating of the CPU, do not block the cooling vents.

## Right side



The **PC Card slot** supports one Type I, Type II, or Type III PC Card. See “[Using PC Cards](#)” on page 214 for more information.



The **PC Card eject button** releases the PC Card from the corresponding slot.

The **SD® card slot** holds a stamp-size flash memory card with various capacities of memory.

The **i.LINK® port**, also known as the IEEE 1394 port, allows transfers of large quantities of data between the computer and an external device, such as a video camera.



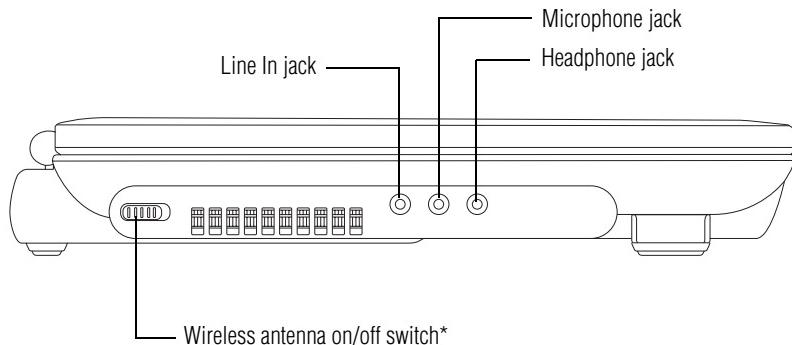
The **USB ports** let you connect a USB peripheral to your computer.

The **IR (infrared) port** provides a cable-free connection for transferring data between your computer and another device, such

as a printer or another computer that has a compatible infrared port.

- The **security lock slot** allows you to attach an optional PORT- Noteworthy® computer lock cable to your computer for securing it to a large, heavy object such as your desk.

## Left side



\* functional only on systems with a wireless module installed

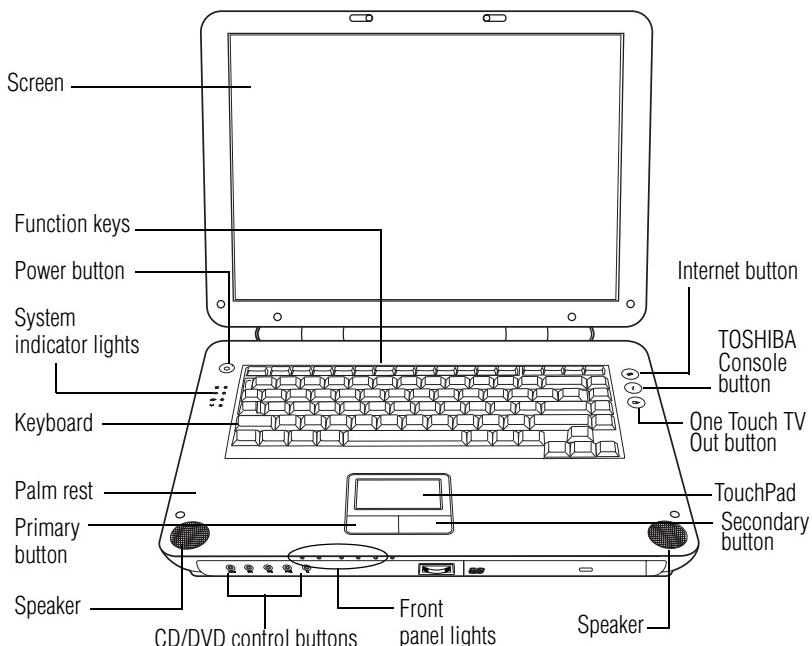
 The 3.5 mm **headphone jack** lets you connect stereo headphones or other audio-output devices, such as external speakers. Connecting other devices automatically disables the internal speakers.

 The 3.5 mm **microphone jack** lets you connect an external monaural microphone or other audio input device.

The **line in jack** lets you connect a DVD or CD player, cassette tape player, or record player to your computer.

On those systems with Wi-Fi™, the **wireless antenna on/off switch** turns the computer's wireless antenna on or off. The Wi-Fi Mini PCI module is optional.

### Front with the display open



The computer's **screen** is a liquid crystal display (LCD) that provides clear, sharp images. For more information about viewing options, see [“Exploring video features” on page 210](#).



The **power button** turns the computer on and off. Holding down the power button for four seconds resets the computer.



The **Internet button** launches your default Internet browser.



The **TOSHIBA Console button** allows quick access to various functions.

The **One Touch TV Out button** activates an external display device, such as a TV, when connected to the S-video port.

The 85-key **keyboard** provides all the functionality of a full-size keyboard. For more information, see [“Using the keyboard” on page 76](#).

The **function keys**, when used with the Fn key, activate several different system functions. For more information, see “[Hot Keys](#)” on page 249.

The **front panel lights** and **system indicator lights** provide information about various system functions.

The **TouchPad™** enables you to move the cursor with the stroke of a finger.

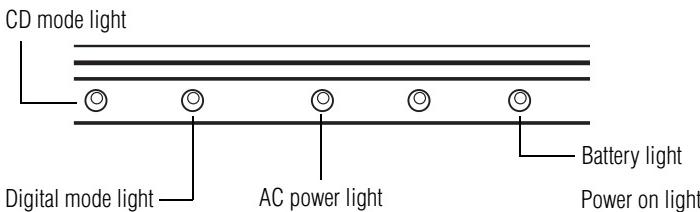
The **primary and secondary buttons** below the TouchPad act like the buttons on a mouse, with primary and secondary functions.

The front panel provides a **palm rest** to assist you in maintaining proper posture while using the computer.

The **CD/DVD control buttons** let you play audio CDs when the computer is turned off. You can also use them to play CDs and DVDs with the computer turned on. For more information, see “[CD/DVD control buttons](#)” on page 84.

The **stereo speakers** let you hear sounds, such as system alarms associated with your software, and music from DVD-ROMs and audio CDs.

## Front panel lights



The **AC Attached** light glows green when the AC adapter is attached to the computer.



The **Power on** light glows blue when the computer is on. The light blinks when the computer is in Standby mode.



The **battery light** indicates the main battery's current charge. It glows green when the battery is fully charged. It glows

amber while the battery is being charged. It does not glow if the external power source is disconnected or if the battery is completely discharged. For more information on determining remaining battery power, see “[Monitoring battery power](#)” on page 107.

The **CD mode light** and **Digital mode light** indicate which audio mode is active. For more information on CD/DVD control buttons, see “[CD/DVD control buttons](#)” on page 84.

## Indicator lights



The **hard disk drive light** flashes while the hard disk drive is being accessed.



The **disc activity light** flashes when the Modular bay drive is being accessed.

The **caps lock light** glows when you press the Caps Lock key. When this light is on, pressing a letter key on the keyboard produces an uppercase (capital) letter.



The **SD® card slot light** goes on when the card slot is in use.



On those systems with Wi-Fi™, the **wireless antenna indicator** glows amber when the computer’s wireless antenna is on. The Wi-Fi Mini PCI module is optional.



The **digital mode light** goes on in digital mode, when the computer is playing a CD or DVD with the computer on.



The **cursor control mode light** glows when the cursor control overlay is on. When this light is on, pressing an overlay key moves the cursor in the direction of the white arrow printed on the key instead of typing the letter printed

on the top of the key. For more information, see “[Using the cursor control overlay](#)” on page 79.

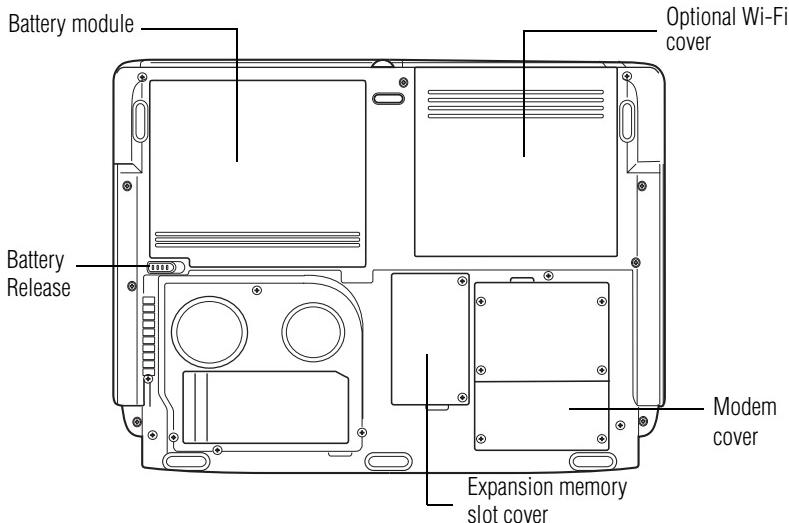


The **numeric mode light** glows when the numeric overlay is on. When this light is on, pressing an overlay key types the white number printed on the key instead of typing the letter printed on the top of the key. For more information, see “[Using the numeric keypad overlay](#)” on page 79.

**CAUTION**

Never turn off the computer while any drive is in use. Doing so may damage the media and result in loss of data.

## Underside



The **expansion memory slot cover** protects the two expansion memory slots where you insert additional memory. See “[Installing additional memory \(optional\)](#)” on page 62 for detailed information.

---

The **hard disk drive** is the computer's permanent data storage device.

---

**CAUTION**

To prevent possible CPU overheating, do not block the cooling vents when the computer is in use.

---

-  The **battery pack** contains the battery. For information about replacing the battery, see “[Changing the main battery](#)” on [page 111](#).
-  The **release** secures the battery to the computer, preventing it from dislodging from the computer case.

# Chapter 2

## Getting Started

This chapter provides tips for working comfortably, describes how to connect components, and explains what to do the first time you use your notebook computer.

### Selecting a place to work

Your computer is portable and designed to be used in a variety of circumstances and locations.

### Creating a computer-friendly environment

Place the computer on a flat surface which is large enough for the computer and any other items you need to use, such as a printer. Leave enough space around the computer and other equipment to provide adequate ventilation and prevent overheating.

To keep your computer in prime operating condition, protect your work area from:

- ❖ Dust, moisture, and direct sunlight.

- 
- ❖ Equipment that generates a strong electromagnetic field, such as stereo speakers (other than speakers that are connected to the computer) or speakerphones.
  - ❖ Rapid changes in temperature or humidity and sources of temperature change such as air conditioner vents or heaters.
  - ❖ Extreme heat, cold, or humidity.
  - ❖ Liquids and corrosive chemicals.
- 

**CAUTION**

If you spill liquid into the computer, turn it off, unplug it from the AC power source, and let it dry out completely before turning it on again.

If the computer does not operate correctly after you turn it back on, contact a Toshiba Authorized Service Provider.

---

## Keeping yourself comfortable

Strain and stress injuries are becoming more common as people spend more time using their computers. With a little care and proper use of the equipment, you can work comfortably throughout the day.

This section provides hints on avoiding strain and stress injuries. For more information, consult books on ergonomics, repetitive-strain injury, and repetitive-stress syndrome.

### Placement of the computer

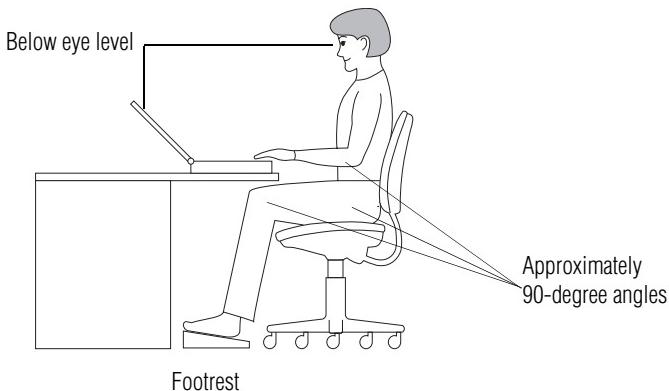
Proper placement of the computer and external devices is important to avoid stress-related injuries.

- ❖ Place the computer on a flat surface at a comfortable height and distance. You should be able to type without twisting your torso or neck, and look at the screen without slouching.

- ❖ If you are using an external monitor, the top of the display should be no higher than eye level.
- ❖ If you use a paper holder, set it at about the same height and distance as the screen.

## Seating and posture

When using your computer, maintain good posture with your body relaxed and your weight distributed evenly. Proper seating is a primary factor in reducing work strain. Some people find a backless chair more comfortable than a conventional chair.



### *Correct posture and positioning of the computer*

Whichever type you choose, use the following guidelines to adjust your chair for maximum computing comfort.

- ❖ Position your chair so that the keyboard is at or slightly below the level of your elbow. You should be able to type comfortably with your shoulders relaxed and your forearms parallel to the floor.

If you are using a conventional chair:

- ❖ Your knees should be slightly higher than your hips. If necessary, use a footrest to raise the level of your knees and ease the pressure on the back of your thighs.

- ❖ Adjust the back of your chair so that it supports the lower curve of your spine. If necessary, use a cushion to provide extra back support. Lower-back-support cushions are available at many office supply stores.
- ❖ Sit with your back straight so that your knees, hips, and elbows form approximately 90-degree angles when you work. Do not slump forward or lean back too far.

## Lighting

Proper lighting can improve the visibility of the display and reduce eyestrain.

- ❖ Position the display panel or external monitor so that sunlight or bright indoor lighting does not reflect off the screen. Use tinted windows or shades to reduce glare.
- ❖ Avoid placing your computer in front of a bright light that could shine directly in your eyes.
- ❖ If possible, use soft, indirect lighting in your computer work area.

## Arms and wrists

- ❖ Avoid bending, arching, or twisting your wrists. Keep them in a relaxed, neutral position while typing.
- ❖ Exercise your hands, wrists, and arms to improve circulation.

**CAUTION**

Using the computer keyboard incorrectly may result in discomfort and possible injury. If your hands, wrists, and/or arms bother you while typing, stop using the computer and rest. If the discomfort persists, consult a physician.

## Work habits

The key to avoiding discomfort or injury from strain is to vary your activities. If possible, schedule a variety of tasks into your working day. Finding ways to break up the routine can reduce stress and improve your efficiency.

- ❖ Take frequent breaks to change position, stretch your muscles, and relieve your eyes. A break of two or three minutes every half hour is more effective than a long break after several hours.
- ❖ Avoid performing repetitive activities for long periods. Intersperse such activities with other tasks.
- ❖ Focusing your eyes on your computer screen for long periods can cause eyestrain. Look away from the computer frequently and focus your eyes on a distant object for at least 30 seconds.

## Precuations

Your notebook computer is designed to provide optimum safety and ease of use, and to withstand the rigors of travel. You should observe certain precautions to further reduce the risk of personal injury or damage to the computer.

- ❖ Avoid prolonged physical contact with the underside of the computer.

If the computer is used for long periods, its case can become very warm. While the temperature may not feel too hot to the touch, if you maintain physical contact with the computer for a long time (if you rest the computer on your lap, for example), your skin might suffer low-heat injury.

- ❖ Never apply heavy pressure to the computer or subject it to sharp impacts. Excessive pressure or impact can damage computer components or otherwise cause your computer to malfunction.

- 
- ❖ Some PC Cards can become hot with prolonged use. If two cards are installed, both can become hot even if only one is being used. Overheating of a PC Card can result in errors or instability in its operation.

Be careful when you remove a PC Card that has been used for a long period.

- ❖ Avoid spilling liquids into the computer's keyboard.  
If you do spill a liquid that gets into the keyboard, turn off the computer immediately. Leave the computer turned off overnight to let it dry out before you use it again.

- ❖ Never turn off the computer if a drive light indicates a drive is active.

Turning off the computer while it is reading from or writing to a disk may damage the disk, the drive, or both.

- ❖ Keep the computer and disks away from objects that generate strong magnetic fields, such as large stereo speakers.

Information on disks is stored magnetically. Placing a magnet too close to a disk can erase important files.

- ❖ Scan all new files for viruses.

This precaution is especially important for files you receive via email or download from the Internet. Occasionally, even new programs you buy from a supplier may contain a computer virus. You'll need a special program to check for viruses. Ask your dealer to help you.

---

## Setting up your computer

---



TECHNICAL NOTE: You must complete all set up steps up to “[Setting up your software](#)” on page [53](#) before adding external or internal components to your computer. These components include, but are not limited to, a mouse, keyboard, printer, memory, and PC cards.

---

Your computer contains a rechargeable high-capacity battery that needs to be charged before you can use it.

To use external power or to charge the battery, you must attach the AC adapter. See [Connecting the AC adapter](#) for more information.

### Setting up your software

The first time you turn on your computer, the Setup Wizard guides you through steps to set up your software.

- 1 From the welcome screen, click **Next** to enter the Setup Wizard.
- 2 Confirm acceptance of Microsoft’s End User License Agreement and click **Next**.
- 3 Enter the computer name and description and click **Next** or **Skip**.

The computer will pause for a moment while checking for an internet connection, and you will see the screen “Checking your internet connectivity.”

A window will display the message: “How will this computer connect to the internet?” The system displays three selections: Telephone modem, Digital subscriber line (DSL) or cable, or Local Area Network (LAN).

- 
- 4 Click **Skip** to exit the process or **Next** to continue.
- 

**NOTE** To register online, your computer's modem must have an Internet connection.

---

A window will display asking if you wish to register with Toshiba and Microsoft.

- 5 Click **Yes** to register, or **No** to exit the process.
- 

**NOTE** If you click No, you may register with Toshiba by clicking the Register with Toshiba icon on the desktop.

---

- 6 If you selected Yes in step 5, enter your personal information in the registration window.

A window will display the message, "Who will use this computer?"

- 7 Enter your name and click **Next** to complete the process.

A window will display the message, "Thank you."

- 8 Click **Finish** to continue.

Your computer restarts automatically.

## Registering your computer with Toshiba

Registering your computer lets Toshiba keep you up-to-date with information about new products and upgrades, and also extends your Toshiba warranty worldwide at no charge to you. You can register your computer with Toshiba during the start-up process or by clicking on the icon on the desktop at a later time.

**NOTE** To register online, your computer's modem must be connected to a voice-grade telephone line.

## Adding external devices

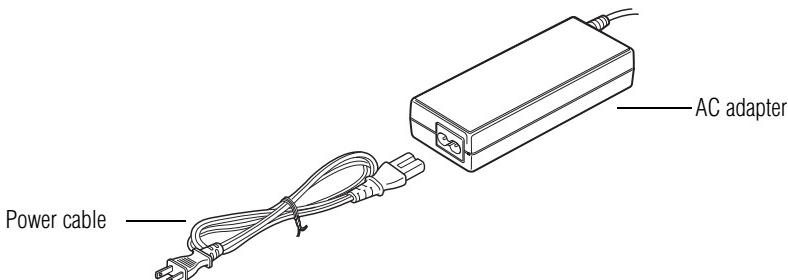
**NOTE** Before adding external devices, Toshiba recommends setting up your software first. See “[Setting up your software](#)” on page 53.

Before starting to use your computer, you may also want to:

- ❖ Add more memory (see “[Installing additional memory \(optional\)](#)” on page 62)
- ❖ Connect a mouse (see “[Connecting a mouse](#)” on page 66)
- ❖ Connect a local printer (see “[Connecting a printer](#)” on page 67)
- ❖ Install PC Cards (see “[Using PC Cards](#)” on page 214)
- ❖ Connect an external TV tuner (see “[Connecting the TV Signal Source](#)” on page 150)
- ❖ Connect an external IR Receiver (see “[Connecting the External Remote Sensor](#)” on page 149)

## Connecting the AC adapter

Your computer requires power to operate. Use the power cable and AC adapter to connect the computer to a live electrical outlet, or to charge the computer's battery.



*Sample Power cable and AC adapter*

**A WARNING**

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. ***Wash hands after handling.***

**A CAUTION**

Use only the AC adapter supplied with your computer or an equivalent adapter that is compatible. Use of any incompatible adapter could damage your computer. Toshiba assumes no liability for any damage caused by use of an incompatible adapter.

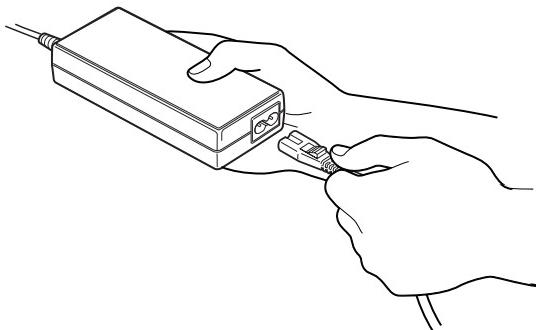
When you connect the AC adapter to the computer, always follow the steps in the exact order as described in the User's Manual. Connecting the power cable to a live electrical outlet should be the last step otherwise the adapter DC output plug could hold an electrical charge and cause an electrical shock or minor bodily injury when touched. As a general safety precaution, avoid touching any metal parts.

**▲ CAUTION**

Hold the power cable by its plug when you connect/disconnect it. Do NOT pull the cable itself. Doing so may damage the power cable and result in a short circuit or electric shock.

To connect AC power to the computer:

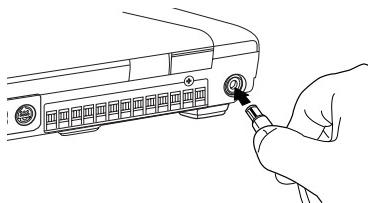
- 1 Connect the power cable to the AC adapter.



*Connecting the power cable to the AC adapter*



- 2 Plug the AC adapter into the DC-IN on the back of the computer.



*Connecting the AC adapter to the computer*

- 3 Connect the power cable to a live electrical outlet.  
The AC power and battery lights glow.

**A WARNING**

Damaged power cables can cause fire or electric shock. Never modify, forcibly bend, place heavy objects on top of, or apply heat to the power cable.

If the power cable becomes damaged or the plug overheats, discontinue use. There is a risk of electric shock.

Never remove the power plug from the outlet with wet hands. Doing so may cause an electric shock.

## Charging the main battery

To charge the main battery, plug the computer into a live wall outlet. It takes several hours to charge the battery with the computer off. It takes much longer to charge the battery while the computer is on. For more information on battery use, see “Running the computer on battery power” on page 103.



**TECHNICAL NOTE:** The battery does not charge while the computer is consuming full power.

**CAUTION**

Once the battery is charged for the first time, avoid leaving the computer plugged in and turned off for more than a few hours at a time. Continuing to charge a fully charged battery can damage the battery.

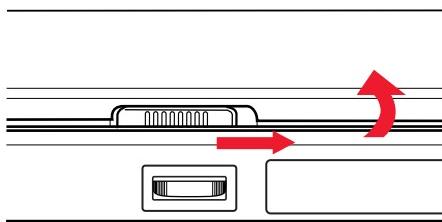
**NOTE**

Battery life and charge time may vary depending on the applications, power management settings, and features used.

# Using the computer for the first time

## Opening the display panel

Slide the display latch to the right and lift the display panel.



### Opening the display panel

**CAUTION**

To avoid damaging the display panel, don't force it beyond the point where it moves easily.

Never lift or move the computer using the display panel.

Small bright dots may appear on your TFT display when you turn on your computer. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology.

## Turning on the power



- 1 Check that any drives on the computer are empty.
- 2 Turn on the computer by pressing and releasing the power button located on the top of the keyboard. For an illustration to help you locate this button, see “Front with the display open” on page 42.

**NOTE**

When you turn on the computer for the first time, don't turn off the power again until the operating system has loaded completely.



The AC power indicator glows when the computer is connected to an external power source.



The battery light:

- ❖ Glows amber while the battery is being charged.
- ❖ Glows green when the battery is fully charged.
- ❖ Is unlit when the computer is not connected to an external power source. For information on determining battery power, see “[Monitoring battery power](#)” on page 107.



The hard disk drive indicator flashes to indicate that the hard disk drive is currently in use.



The disc activity indicator flashes while the modular bay is being accessed.

**CAUTION**

Never turn off the computer while any drive is in use.

## Using the TouchPad™

The TouchPad, the small, smooth square cutout located in front of the keyboard, is sensitive to touch and enables you to move the cursor with the stroke of a finger. Simply move your finger on the TouchPad in the direction you'd like to move the cursor:

- ❖ To move the cursor to the top of the page, push your finger forward on the TouchPad.
- ❖ To move the cursor to the bottom of the page, drag your finger toward yourself.

- ❖ To move the cursor to the right side of the page, slide your finger across the TouchPad from left to right.
- ❖ To move it to the left side, slide your finger from right to left.

**NOTE**

Because the TouchPad is much smaller than the display screen, moving your cursor across the screen often means having to move your finger several times across the TouchPad in the preferred direction.

Once you've positioned your cursor, you can either click it into place by double-tapping the TouchPad or clicking the control buttons. For more on the TouchPad, see "Lesson 2: Using the TouchPad and control buttons together" on page 121.

## Control buttons

When a step instructs you to click or choose an item, move the cursor to the item, then press and release the primary (left-hand) button. To double-click, press the primary button twice in rapid succession. The primary button usually corresponds to the left mouse button.

The function of the secondary (right-hand) button depends on the program you are using. It usually corresponds to the right mouse button. Check your program's documentation to find whether it uses the right mouse button.

## Disabling or enabling the TouchPad

The TouchPad is enabled by default. To change the enable/disable TouchPad setting:

**1 Click Start, Control Panel.**

The Control Panel window appears.

**2 Click Printers and Other Hardware.**

- 
- 3** Click **Mouse** or press the Fn + F9 hot keys.  
The Mouse Properties window appears.
  - 4** Click the **TouchPAD ON/OFF** tab.  
The TouchPAD ON/OFF tab view window appears.
  - 5** Select **Disable** or **Enable**, whichever is appropriate.
  - 6** Click **Apply**.
  - 7** Click **OK**.  
The Mouse Properties window closes.
  - 8** Close the Printers and Other Hardware window.
  - 9** Close the Control Panel window.

---

**NOTE** The Fn + F9 shortcut can be used to enable or disable the TouchPad (see “Hot Keys” on page 249).

---

## Installing additional memory (optional)

---

**CAUTION** Before you install or remove a memory module, turn off the computer using the Start menu. If you install or remove a memory module while the computer is in Stand by or Hibernation mode, data will be lost.

---

Your computer comes with enough memory to run most of today’s popular applications. You may want to increase the computer’s memory if you use complex software or process large amounts of data.

Additional memory comes in various capacities (to stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at

([pcsupport.toshiba.com](http://pcsupport.toshiba.com)). There are two memory slots. Your system may have both slots occupied.

**CAUTION**

If you use the computer for a long time, the memory modules will become hot. If this happens, let the modules cool to room temperature before you replace them.

You need a standard Phillips no. 1 screwdriver to install a memory module.

**CAUTION**

To avoid damaging the computer's screws, use a standard Phillips no. 1 screwdriver that is in good condition.

If you are adding memory after you have started to use the computer, begin at step 1, otherwise skip to step 2.

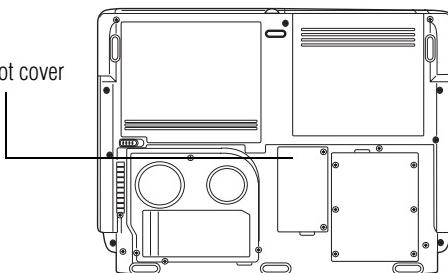
- 1 Turn off the computer via the Start menu.

See “[Using Shut down](#)” on page 94.

The operating system turns off the computer.

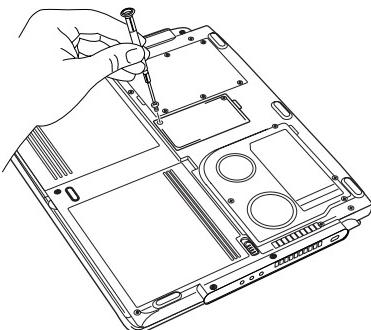
- 2 Unplug and remove any cables connected to the computer.
- 3 Close the display panel and turn the computer upside down to locate the expansion memory slot cover.

Memory slot cover



*Base of a Satellite P15 series computer*

- 
- 4 Using a standard Phillips no. 1 screwdriver, unscrew the two screws that secure the expansion memory slot cover, then remove the memory slot cover.



*Removing the memory slot cover*

- 5 Put the screws and the cover in a safe place so that you can retrieve them later.

---

**CAUTION**

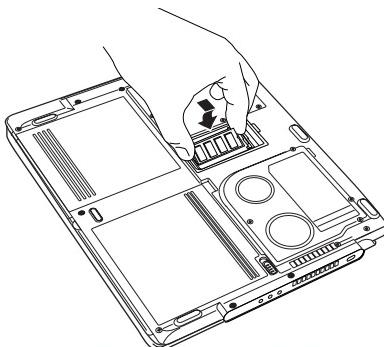
Static electricity can damage the memory module. Before you handle the module, touch a grounded metal surface to discharge any static electricity you may have built up.

To avoid damaging the memory module, be careful not to touch its gold connector bar (on the side you insert into the computer).

---

- 6 Remove the memory module from its antistatic packaging.
- 7 Holding the memory module by its edges so that the gold connector bar faces the slot, fit the module into the socket.
- 8 Gently put the memory module connector down at an angle and press down until the clips snap into place.

Do not force the module into position. The memory module should be level when secured in place.



*Inserting the memory module*

**CAUTION**

Avoid touching the connectors on the memory module or on the computer. Grease or dust on the connectors may cause memory access problems.

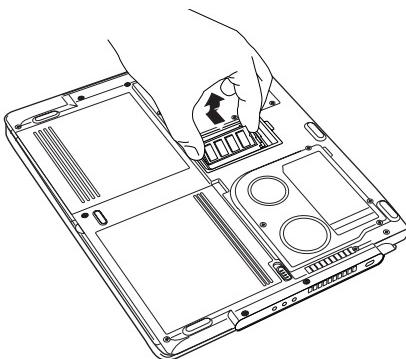
- 9 Replace the expansion memory slot cover.
- 10 Replace the screws and tighten them.
- 11 Turn the computer over and reconnect any cables you removed.
- 12 Turn on the computer.

To verify that the computer correctly recognizes the memory, click **Start**, **Control Panel** and click **Performance and Maintenance**. Click **System** to view the recognized memory (RAM).

- 13 If the computer does not recognize the memory, shut down the computer, remove the memory slot cover, and make sure the memory module is seated properly, as described in step 8.

## Removing a memory module

- 1** Follow steps 1 through 6 in “[Installing additional memory \(optional\)](#)” on page 62.
- 2** Gently push the memory locks outward until the memory module pops up.



*Removing the memory module*

- 3** Gently pull the memory module diagonally to pull it out of the slot.
- 4** Complete the procedure by following steps 10 through 12 in “[Installing additional memory \(optional\)](#)” on page 62.

## Connecting a mouse

You may want to use a mouse instead of the TouchPad, the computer’s built-in pointing device.

To connect a USB mouse, plug the mouse cable into one of the USB ports.

## Connecting a printer

**NOTE**

Read the documentation that came with your printer. Follow the manufacturer's instructions when connecting a local printer.

**NOTE**

You must supply the proper printer cable. If one did not come with your printer, you may purchase one from an electronics or computer store.

If your printer is ECP- or IEEE-compliant, make sure your printer cable is an IEEE 1284 cable.

**CAUTION**

Your printer documentation may require you to install the printer software before physically connecting the printer to your computer. If you do not install the software as instructed by the printer manufacturer, the printer may not function correctly.

**CAUTION**

Never connect the printer cable while the computer's power is on. Doing so may damage the printer, the computer, or both.

You can connect a USB-compatible printer to your computer through the USB ports. To determine if the printer is USB-compatible, check its documentation.

To achieve the connection, you need a suitable USB cable, which may come with your printer. You can purchase one from a computer or electronics store.

To connect a USB printer:



- 1** Plug the USB connector into one of the USB ports on your computer
- 2** Plug the printer's power cable into a live AC outlet.

To connect a parallel printer:

**CAUTION**

Connecting the parallel printer cable while the computer is on may damage the printer, the computer, or both.



- 1** Connect the printer cable to the printer and to the computer's parallel port.

*Identifying the ends of a parallel printer cable*

- 2** Plug the printer's power cable into a live AC outlet.

See your printer documentation for additional configuration steps, or see “Setting up a printer,” below.

## Setting up a printer

If you started your computer with a printer connected and turned on, it may have been detected automatically (Plug and Play). If this is not the case, then you must install the printer driver for the model of printer that is connected to your computer. You install the printer driver either by following the instructions indicated in your printer manual, or by using the operating system Add Printer Wizard.

If you plan to set up a printer later, click **Cancel**.

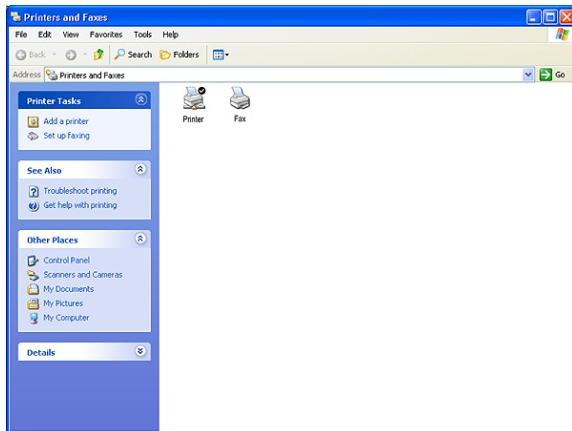
### Using the Add Printer Wizard

To set up a printer with the Add Printer Wizard:

- 1** Click **Start**, **Control Panel**, then **Printers and Other Hardware**.

**2 Select Printers and Faxes.**

The Printers and Faxes window appears.



*Sample Printers and Faxes window*

**3 Click Add Printer.**

The Add Printer Wizard starts.



*Sample Add Printer Wizard*

---

**4 Click Next.**

The Add Printer Wizard asks you to select your printer.

---



**TECHNICAL NOTE:** If your printer is Plug and Play, the operating system recognizes it automatically. You can ignore the remainder of this section. See your printer manual.

---

**5 If the printer you are setting up:**

- ❖ Is not connected to a network, select **Local printer attached to this computer**.

If you select Local printer, check “Automatically detect and install my Plug and Play printer.”

- ❖ Is connected to a network, select **Network printer, or a printer attached to another computer**.

**6 Click Next.**

The Add Printer Wizard prompts you to select your printer.

**7 From the list of manufacturers and printers, select your printer, then click **Next**.****8 Select the port settings according to the instructions in your printer’s documentation and the port to which your printer is connected, then click **Next**.**

The Add Printer Wizard prompts you to enter a printer name.

**9 Enter a name for your printer.**

**HINT:** If you are using more than one printer, make sure the name is descriptive enough to help you tell the difference.

---

**10 To set up the printer to be the default printer for the operating system, click **Yes**.**

---

**11** Click **Next**.

The operating system prompts you to print a test page.

**12** If your printer is connected and turned on, click **Next**.

To complete the setup procedure without printing a test page, click **No**, then click **Next**.

**13** Click **Finish**.

You are now ready to print.

Depending on your program, you may see various messages indicating the status of your print job.

## Turning off the computer

It is a good idea to turn off your computer when you are not using it for a while.

If you are using the computer for the first time, leave the computer plugged into a power source (even though the computer is off) to fully charge the main battery. With the computer off, it may take up to three hours to recharge the main battery.

When you power down the computer, you have three options to choose from: Turn Off (or Shut down), Hibernate and Standby. Each option has its advantages.

- ❖ Use the Turn Off command if you are using the Windows® XP Media Center Edition (MCE) operating system when not connected to a domain server.
- ❖ Use the Shut down command if you are using the Windows® XP Media Center Edition (MCE) operating system and connected to a domain server.
- ❖ If you have work in progress and are not connected to a network, use the Windows® Standby or Hibernate commands to save your system settings to memory so that, when you turn on the computer again, you will automatically return to where you left off.

- 
- ❖ To leave the computer off for a longer period, you can use the Windows® Turn Off command when not connected to a domain server or the Shut down when connected to a domain server instead.
- 

**CAUTION**

Never turn off the computer while any drive is in use. Doing so may damage the media in use and result in loss of data.

---

For more information, see “[Powering down the computer](#)” on [page 93](#).

## Caring for your computer

This section gives tips on cleaning and moving your computer, and explains how to fit an antitheft lock. For information about taking care of your computer’s battery, see “[Running the computer on battery power](#)” on [page 103](#).

### Cleaning the computer

To keep your computer clean, gently wipe the display panel and exterior case with a lightly dampened cloth. Ask your Toshiba dealer for suggestions for appropriate cleaning products.

---

**CAUTION**

Keep liquid, including cleaning fluid, out of the computer’s keyboard, speaker grille, and other openings. Never spray cleaner directly onto the computer. Never use harsh or caustic chemical products to clean the computer.

---

## Moving the computer

Before moving your computer, even across the room, make sure all disk activity has ended (the disk activity lights stop glowing) and all external peripheral cables are disconnected.

**CAUTION**

Never pick up the computer by its display panel or by the back (where the ports are located).

Although your notebook computer is built to withstand reasonable shock and vibration, transport it in a carrying case for long trips. To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at [pcsupport.toshiba.com](http://pcsupport.toshiba.com).

## Using a computer lock

You may want to secure your computer to a heavy object such as your desk. The easiest way to do this is to purchase an optional PORT-Noteworthy® computer lock cable.



*PORT-Noteworthy® computer lock cable*

To secure the computer:

- 1 Loop the cable through or around some part of a heavy object.

Make sure there is no way for a potential thief to slip the cable off the object.

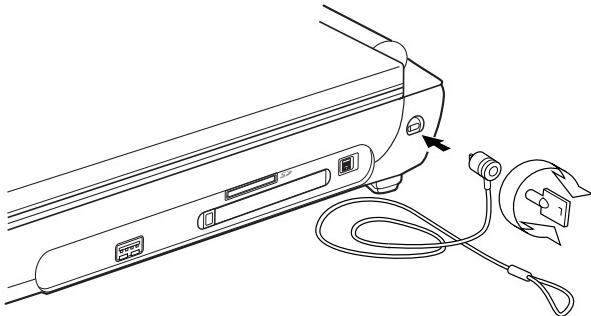
- 2 Pass the locking end through the loop.



3

Insert the cable's locking end into the security lock slot, then rotate the key a quarter turn and remove it.

The computer is now securely locked to deter computer theft.



*Locking the computer*

# Chapter 3

## Learning the Basics

---

This chapter lists some computing tips and provides important information about basic features.

### Computing tips

- ❖ Save your work frequently.

Your work temporarily stays in the computer's memory until you save it to the disk. You will lose all unsaved work, if, for example, a system error occurs and you must restart your computer, or your battery runs out of charge while you are working. Your computer can be configured to warn you when the battery is running low. See “[Power management](#)” on page 105.

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HINT: Some programs have an automatic save feature which you can turn on. This feature saves your file to the hard disk at preset intervals. See your software documentation for details.

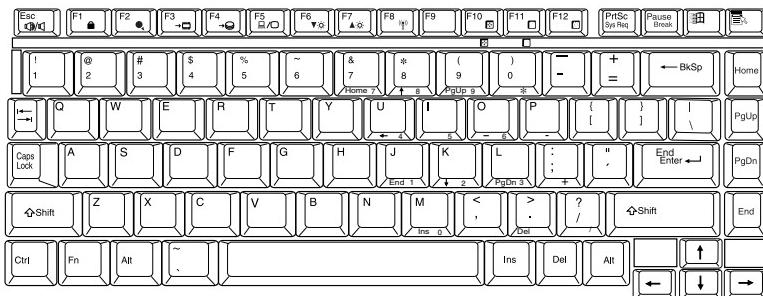
---

- ❖ Back up your files to storage media on a regular basis. Label the backup copies clearly and store them in a safe place.  
If your hard disk suddenly fails, you may lose all the data on it unless you have a separate backup copy.
- ❖ Use Error-Checking and Disk Defragmenter regularly to conserve disk space and help your computer perform at its optimal level. Consult your Windows® XP operating system documentation for more information on these and other utilities.
- ❖ Always use the proper procedure to turn off the computer. (See “[Powering down the computer](#)” on [page 93](#).)

**CAUTION**

The operating system records information, such as your desktop setup, during its shut down procedure. If you don't let the operating system shut down normally, details such as new icon positions may be lost.

## Using the keyboard



*Keyboard*

## Character keys

Typing with the character keys is very much like typing on a typewriter, except that:

- ❖ The spacebar creates a space character instead of just passing over an area of the page.
- ❖ The lowercase l (el) and the number 1 are not interchangeable.
- ❖ The uppercase letter O and the number 0 are not interchangeable.
- ❖ The Caps Lock key changes only the alphabet keys to uppercase — the number and symbol keys are not affected.  
The caps lock light on the keyboard indicator panel illuminates when you press the Caps Lock key.

## Ctrl, Fn, and Alt keys



### *Ctrl, Fn and Alt keys*

The Ctrl, Fn, and Alt keys do different things depending on the program you are using. For more information, see your program documentation.

## Function keys

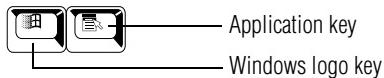
The function keys (not to be confused with the Fn key) are the 12 keys at the top of the keyboard.



### *Function keys*

F1 through F12 are called function keys because they run programmed functions when you press them. Used in combination with the Fn key, function keys marked with icons run specific functions on the computer.

## Windows® special keys

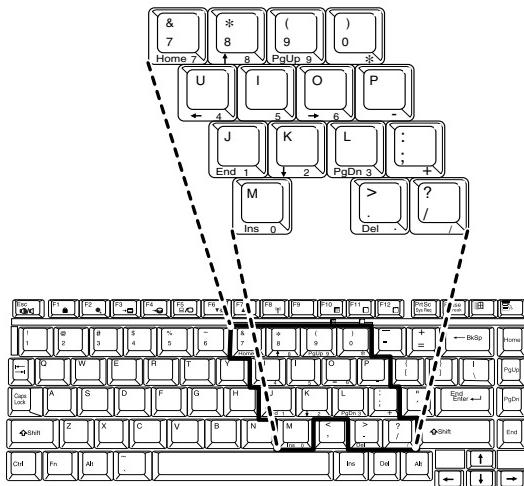


### *Windows® special keys*

The keyboard provides two keys that have special functions in the operating system:

- ❖ The Windows® logo key opens the Start menu.
- ❖ The Application key has the same function as the secondary TouchPad control button (or secondary mouse button).

## Overlay keys



### *Keyboard overlay keys*

The keys with numbers and symbols on the front of them form the numeric and cursor overlay. This overlay lets you enter numeric data or control the cursor as you would using the ten-key keypad on a desktop computer's keyboard.

## Using the numeric keypad overlay



To turn on the numeric keypad overlay, press Fn and F11 simultaneously. The numeric mode light on the keyboard indicator panel glows when the numeric overlay is on.

You can still use the overlay keys to type alphabetic characters while the numeric overlay is on. To do so:

- ❖ For lowercase letters, hold down Fn while you type the letters.
- ❖ For uppercase letters, hold down both Fn and Shift while you type the letters.

To use the cursor control overlay when the numeric overlay is on, press and hold down Shift while you use the cursor control keys. To return to the numeric overlay, release Shift.

To turn off the numeric keypad overlay, hold down the Fn key and press F11 again. The numeric mode light on the keyboard indicator panel goes out.

## Using the cursor control overlay



To turn on the cursor control overlay, press Fn and F10 simultaneously. The cursor control mode light on the keyboard indicator panel glows when the cursor control overlay is on.

To type alphabetic characters while the overlay is on:

- ❖ For lowercase letters, hold down Fn while you type the letters.
- ❖ For uppercase letters, hold down both Fn and Shift while you type the letters.

To use the numeric keypad overlay when the cursor control overlay is on, hold down Shift while you use the numeric overlay keys. To return to the cursor control overlay, release Shift.

---

To turn off the cursor control overlay, hold down the Fn key and press F10 again. The cursor control mode light on the keyboard indicator panel goes out.

## Starting a program

The easiest way to start a program is to double-click the name of the file that contains the information you want to work on. To find the file, use My Computer or Windows Explorer.

If you prefer to open the program first, you have four options:

- ❖ Double-click the icon for the program on your desktop
- ❖ Use the Start menu
- ❖ Use Windows Explorer to locate the program file
- ❖ Use the Run dialog box

The Windows® XP operating system tutorial chapter gives step-by-step instructions for starting a program from the Start menu. See “[Lesson 6: Starting programs](#)” on page 127.

## Saving your work

Before you turn off the computer, save your work to the hard disk drive.

---

**NOTE** Always save your data even when you are using the Stand by. If your battery fully discharges, your information will be lost. Your computer can be configured to warn you when the battery is running low, see “[Power management](#)” on page 105.

---

Many programs offer a feature that saves documents at regular intervals, such as every 15 minutes. Check your programs’ documentation to see whether they have an automatic save feature.

---

To save:

- ❖ A file you are updating, open the program's **File** menu and click **Save**.
  - ❖ A new file, choose **Save As** from the **File** menu, type a name for the file, and click **OK**.
- 



HINT: To make another copy of the file you are currently working with, choose Save As from the File menu and give the new file a different name.

---

For information on how to name a file, see “[Windows® XP file system](#)” on page 120.

## Printing your work

Verify that the Windows® XP operating system is set up for your printer as described in “[Setting up a printer](#)” on page 68.

---



TECHNICAL NOTE: You only need to set up the printer the first time you connect it. If you use more than one printer or are changing printers, you will need to set up the operating system to run with the additional printer(s).

---

To print a file:

- 1 If your printer is not on, turn it on now.
- 2 In the **File** menu of your program, click **Print**.  
The program displays a Print dialog box.
- 3 Click **OK** to print.

## Backing up your files

Backing up your files means copying individual files to media, such as CD, or copying entire sections of your hard disk to another device, such as a tape drive.

For those systems with a writable optional drive, you may back up file to a CD as follows:

- 1 To back up to a CD or other media, insert the media into the appropriate drive.
- 2 Click **Start**, then click **My Computer**.
- 3 Click the drive that contains the file you want to copy.
- 4 Double-click the folder that contains the file, then click the file you want to copy.

---

HINT: You can use the Ctrl or Shift keys to select more than one file.

---



- 5 Click **File**, then click **Send To**.

## Using the DVD-ROM or multi-function drive

Optical storage has become the preferred medium for software, music, and video. Digital versatile discs (DVDs) provide a significant increase in data storage and support features that are not available on any other video platform. These features include wide-screen movies, multiple language tracks, digital surround sound, multiple camera angles, and interactive menus.

For these reasons, your computer may come with a DVD-ROM drive or a multi-function drive.



HINT: Your DVD-ROM or multi-function drive is designed to play region 1 (North America) DVD-ROMs.



TECHNICAL NOTE: Your DVD-ROM or multi-function drive is set to play region 1 (North America) DVD-ROMs. If you play a DVD disc from another region, the drive will automatically change to play in the format of the other region. The drive will allow you to change regions four times. On the fourth change, the region will be "locked in." That is, the drive will only play DVDs from that last region. Note that changing from region 1 to region 2 and back to region 1 is counted as two changes.

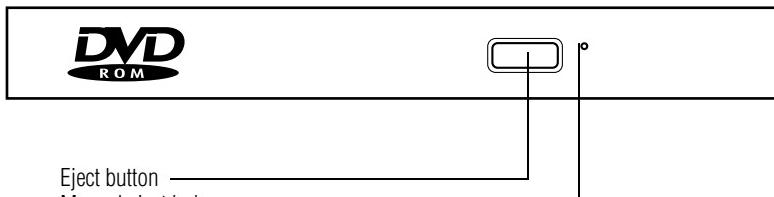
You use CD-ROMs to load and run software, and to access reference material such as catalogs, as well as listen to music. A special feature allows you to play audio CDs even when the computer is turned off.

## Drive components and control buttons

The DVD-ROM or multi-function drive is located on the front-right side of the computer. The CD/DVD control buttons are located at the front edge of the computer and can be accessed when the display panel is closed or open.

## DVD-ROM drive components

Your DVD-ROM drive may look like this:



*Sample DVD-ROM drive*

**CAUTION**

Never press the eject button or turn off the computer while the drive-in-use indicator light is glowing. Doing so could damage the disc or the drive.

The eject button requires power to operate. The manual eject button does not require power.

**CAUTION**

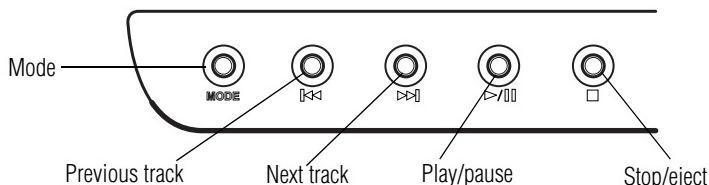
Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer and damage it. Instead, use a slim object such as a straightened paper clip.



HINT: When the computer is off and the DVD-ROM drive is on, press the stop/eject control button on the top of the computer to eject a disc.

## CD/DVD control buttons

The control buttons on the front edge of the computer let you to play audio CDs when the computer is off. You can also use them to play CDs and DVDs when the computer is on.



### *CD/DVD control buttons in front of the computer*

The **mode** button switches between the CD/DVD and digital audio modes. You can lock the mode to its current setting by pressing and holding the mode button for four seconds. When

the mode button is locked, you cannot switch between the CD/DVD and digital audio modes. To unlock the mode button, press and hold it for four seconds.

The **previous track** button returns to the preceding track on the disc.

The **next track** button skips to the following track on the disc.

The **play/pause button** starts playing the disc or makes it pause if currently playing.

The **stop/eject** button stops a disc that is currently playing.

You can eject a disc by pressing the stop/eject button twice. Use this method to eject a disc when the computer is turned off and the sound subsystem is turned on.

## **CD/DVD control and digital audio modes**

The following chart describes CD/DVD control and digital audio mode.

	<i>CD/DVD Mode</i>	<i>Digital Audio Mode</i>
<b>Power is off and you press Play/Pause</b>	If a CD is in the drive, the system enters CD player mode and operates as a stand-alone CD player.  If a DVD is in the drive, the operating system starts and the DVD player starts.	The operating system starts, the Media Player starts and the digital audio file begins to play.
<b>While in CD/DVD mode, you press the mode button</b>	DVD-ROM drive power turns off.	

	<i>CD/DVD Mode</i>	<i>Digital Audio Mode</i>
<b>Power is off and you press Play/Pause</b>	If a CD is in the drive, the system enters CD player mode and operates as a stand-alone CD player.  If a DVD is in the drive, the operating system starts and the DVD player starts.	The operating system starts, the Media Player starts and the digital audio file begins to play.
<b>Operating system is running and you press Play/Pause</b>	If a CD is in the drive, the Media Player starts and the digital audio file begins to play.  If a DVD is in the drive, WinDVD starts and the DVD begins to play.	Media Player starts and the digital audio file begins to play.

## Inserting a disc

**A CAUTION**

Before playing an audio CD, turn the volume down. Playing the compact disc at maximum volume could damage your ears. To turn the volume down, use the Volume Control switch or access the Volume Control program (click Start, All Programs, Accessories, Entertainment, Volume Control).

- 1 If the computer is turned on, press the eject button on the DVD-ROM drive.

---

The disc tray partially opens.

---

**CAUTION**

To avoid damaging a disc or losing data, check that the disc activity light is off before opening the disc tray.

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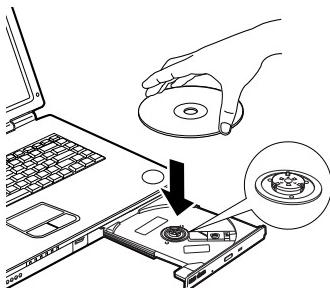
- 2 Grasp the disc tray and pull it fully open.
  - 3 Hold the disc by its edges and check that it is clean and free of dust.
- 

**CAUTION**

Handle discs carefully. Avoid touching the surface of the disc. Grasp it by its center hole and edge. If you handle the disc incorrectly, you could lose data.

---

- 4 Carefully place the disc in the empty tray with its label facing up.



*Inserting a disc*

**CAUTION**

Be careful not to touch the drive's lens (located underneath the drive's spindle) or the area around it. Doing so could cause the drive to malfunction.

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- 
- 5** Gently press the center of the disc onto the spindle until it locks into place.



*Positioning the disc on the spindle*

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**CAUTION** Make sure the disc is properly positioned on the spindle. If you position the disc incorrectly, it can jam the disc tray.

---

- 6** Close the disc tray by pressing gently on the center of the tray until it clicks indicating that it is locked.

## Playing an audio CD

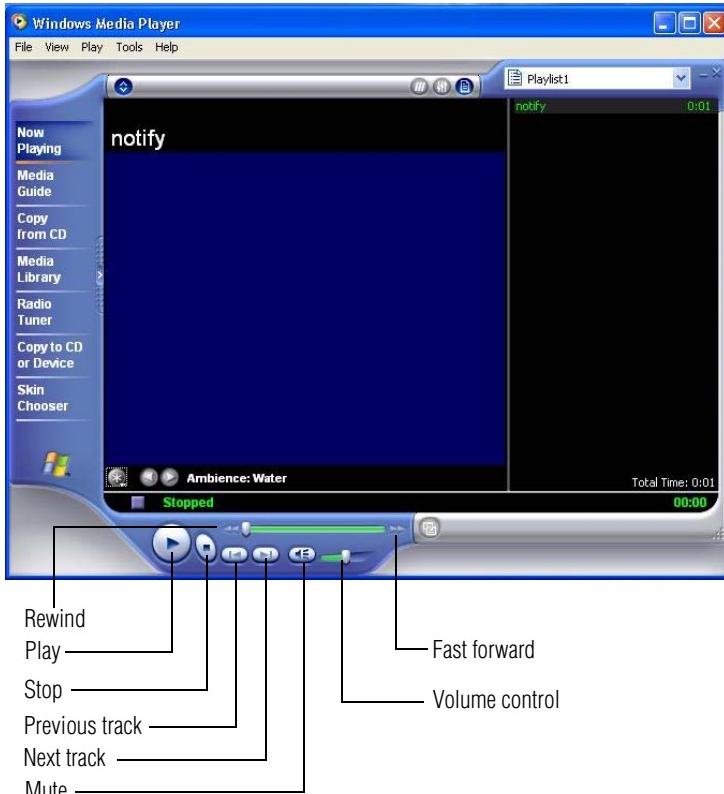
Insert an audio CD and close the disc tray.

The computer automatically detects a disc in the drive and opens the Audio CD window. To play an audio CD select the Play Audio CD using Windows Media Player option and click OK.



*Sample Audio CD window*

The Windows Media Player window appears.



### *Sample Windows Media<sup>TM</sup> Player screen*

The Windows Media<sup>TM</sup> Player control panel works much like an ordinary compact disc player:

- ❖ To play the CD or to pause, click the **Play/Pause** button on the CD Player control panel.
- ❖ To stop the CD, click the **Stop** button.

## Viewing the contents of a CD or DVD

CDs and DVDs contain files just like the hard disk. CDs are often used to install software or store files that require lots of space, such as photographs and large presentation files. You can use Explorer or My Computer to view the contents of any CD or DVD.

## Removing a disc with the computer on

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**CAUTION**

Never press the eject button or turn off the computer while the drive-in-use light is glowing. Doing so could damage the disk or the drive.

---

- 1** Locate and press the eject button.  
The disc tray partially opens.
- 2** Grasp the sides of the disc tray and pull it fully open.
- 3** Remove the disc from the disc tray and place it in its protective cover.

**CAUTION**

If the disc is spinning when you open the disc tray, wait for the disc to stop before removing it.

---

- 4** Close the disc tray by pressing gently on the center of the tray until it clicks indicating that it is locked.

## Removing a disc with the computer off

- 1 Insert a slender object, such as a straightened paper clip, into the manual eject button access hole.

**CAUTION**

Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer and damage it.

- 2 Pull the tray fully open, remove the disc and place it in its protective cover.
- 3 Close the disc tray by pressing gently on the center of the tray until it clicks indicating that it is locked.

## Caring for CDs and DVDs

- ❖ Store your discs in their original containers to protect them from scratches and keep them clean.
- ❖ Never bend a disc or place heavy objects on top of it.
- ❖ Hold a disc by its outside edge. Fingerprints on the surface of a compact disc can prevent the drive from reading the data properly.
- ❖ Avoid exposing discs to direct sunlight or extreme heat or cold.
- ❖ To clean a disc, wipe it from the center outwards (not in a circle) with a clean, dry cloth. If necessary, moisten the cloth with water or a neutral cleaner (not benzine or rubbing alcohol). Let the disc dry completely before inserting it in the drive.

## Setting up for communications

To communicate across the telephone lines with another computer, you need:

- ❖ The computer's modem
- ❖ A telephone line
- ❖ An Internet Service Provider (ISP)

To connect to the Internet, you need a Web browser, such as Microsoft® Internet Explorer.

To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at [pcsupport.toshiba.com](http://pcsupport.toshiba.com).

### Connecting the modem to a phone line

Your computer comes with a built-in modem. To use the modem, you must connect it to a standard voice-grade RJ-11 telephone line. To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at [pcsupport.toshiba.com](http://pcsupport.toshiba.com).

- 1 Attach one end of a standard RJ-11 telephone cable to the modem port.  
To locate the modem port, see “[Back](#)” on page 39.
- 2 Plug the other end of the RJ-11 telephone cable into the modular jack of a standard voice-grade telephone line.

### Connecting your computer to a network

You can connect your computer to a network remotely, using the built-in modem and a dial-up connection. For specific information about connecting to the local area network (LAN) or wide area network (WAN), consult your network administrator.

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To use a dial-up connection, have your network administrator configure your computer for the network and supply you with the telephone number for the dial-up connection. To set up the network connection, use the Dial-Up Networking Wizard:

- 1** Click **Start** and point to **All Programs**.
- 2** Point to **Accessories**, then to **Communications**.
- 3** Click **Network Setup Wizard** or **Network Connections**.
- 4** Enter the phone number of your network connection and let the program dial the number.

The computer connects with the network.

## **Powering down the computer**

---

**CAUTION**

Pushing the power button before shutting down the Windows® operating system could cause you to lose your work. Make sure the system indicator panel's disk light and the drive-in-use light are off. If you turn off the power while a disk is being accessed, you may lose data or damage the disk and/or drive.

---

When you power down the computer, you have three options to choose from: Turn Off, Stand By, and Hibernation.

You can set the computer to turn on automatically at a time you designate. This option is helpful for transferring files by modem at night. You can set the computer to turn on and send or receive the files while you are asleep. This option is called Auto Power On.



TECHNICAL NOTES: Before using any of these options to power down your computer, save your files and make sure the disk activity lights are off.

If you change your mind and decide to continue working after all, wait a few seconds before turning the computer on again.

---

## Using Shut down

For the Windows® XP Media Center (MCE), follow these steps to shut down the computer:

- 1 Click the **Start** button, then **Shut down**.

The Shut Down Windows dialog box appears.

- 2 Select **Shut down** from the drop-down list.
- 3 Click **OK**.

The computer shuts down completely.

---

**NOTE**

Holding the shift key while the Turn Off computer Windows dialog box is open, changes the Stand By button to Hibernate. For more information about setting up hibernation “[Hibernation command](#)” on page 94 and “[Using Hibernation](#)” on page 97.

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## Hibernation command

The Hibernation command shuts the computer down completely, but it first saves the current state of the computer to the hard disk. Since Hibernation mode does not require power to maintain the saved information, the system settings are retained indefinitely. Restoring information from the hard disk takes longer than restoring it from memory. When you start up again, the computer runs a self-test, loads the

---

operating system, and then returns to the state in which you left it.

Factors when choosing Hibernation mode:

- ❖ While in Hibernation mode, the computer uses no battery power.
- ❖ Because the state of the system is held on the hard disk, no data is lost if the battery discharges.
- ❖ Restarting from Hibernation mode uses less time and battery power than restarting from Shut down.
- ❖ Restarting from Hibernation mode uses a little more time and battery power than restarting from Stand by because information is being retrieved from the hard disk instead of memory.
- ❖ When starting up again, the computer returns to the state in which you left it, including all open programs and files you were using.

For more information about the Hibernation command, see “[Using Hibernation](#)” on page 97. For information about going into Hibernation mode more quickly, see “[Going into Hibernation mode more quickly](#)” on page 98.

## **Stand By command**

The Stand by puts the computer into a power-saving mode. Stand by holds the current state of the computer in memory so that, when you restart the computer, you can continue working from where you left off.

Factors when choosing Stand by:

- ❖ While in Stand by mode, the computer uses some battery power. The battery will eventually discharge in Stand by mode. If the battery discharges, your data will be lost if you do not save your work before entering Stand by mode.

- ❖ Restarting from Stand by mode uses less time and battery power than restarting from Shut down or Hibernation mode.
  - ❖ When starting up again, the computer returns to the mode in which you left it, including all open programs and files you were using.
- 

**NOTE** If you power down using the Stand by and the battery discharges fully, your information will be lost. Be sure to save your work first.

---

For more information about the Stand by, see “[Using Stand by](#)” on page 100. For information about going into Stand by mode more quickly, see “[Going into Stand by mode more quickly](#)” on page 101.

## Turning off more quickly

You can also turn off the computer by pressing the power button or closing the display panel.

To use either of these methods, you first need to turn on the feature in the Toshiba Power Management Utility.

- 1 Click **Start**, **Control Panel**, then **Performance and Maintenance**.
- 2 Double-click the **Toshiba Power Management** icon.  
The Power Options Properties dialog box appears.
- 3 Click the **Advanced** tab, and select the options you want.
  - ❖ **When I close the lid of my portable computer**  
Set this option to **Power Off** to have the computer shut down when you close the display panel.
  - ❖ **When I press the power button on my computer**  
Set this option to **Power Off** to have the computer shut down when you press the power button.





Sample Toshiba Power Management Advanced tab

- 4 Click **Apply**.
- 5 Click **OK**, then close the Control Panel.

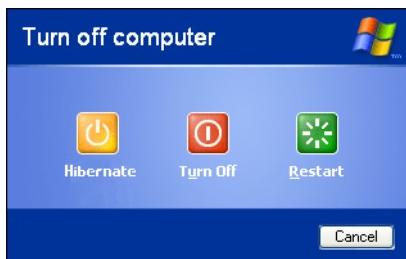
## Starting again after Shut down

To start the computer up again, press and release the power button. The on/off light turns on.

## Using Hibernation

Follow these steps to power down the computer using Hibernation:

- 1 Click **Start**, select **Shut down computer**.  
The Turn off computer dialog box appears.
- 2 Hold down the shift key.  
The Stand by option changes to the Hibernation option.



*Sample Shut down computer dialog box*

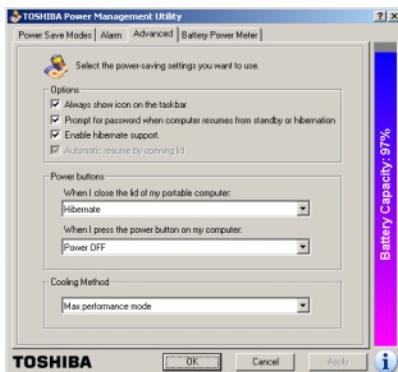
**3 Click **Hibernate**.**

The computer saves the mode of the system, including all open programs and files, to the hard disk, and then powers down completely.

### **Going into Hibernation mode more quickly**

You can also put the computer into Hibernation mode by pressing the power button or closing the display panel.

- 1 Click **Start**, **Control Panel**, then **Performance and Maintenance**.**
- 2 Double-click the **Toshiba Power Management** icon.**
- 3 Click the **Advanced** tab, and select the options you want.**
  - ❖ **When I press the power button**  
Set this option to **Hibernation** for the computer to go into Hibernation mode when you press the power button.
  - ❖ **When I close the lid**  
Set this option to **Hibernation** for the computer to go into Hibernation mode when you close the display panel.



*Sample Toshiba Power Management Advanced tab*

- 4 Click **Apply**.
- 5 Click **OK**, then close the Control Panel.

## Starting again from Hibernation mode

To start the computer from Hibernation mode, press and release the power button. The computer returns to the screen you were using.

If you put the computer in Hibernation mode by closing the display panel, you can start it again by opening the display panel.

**NOTE** If your computer is running on batteries, you cannot start it again by opening the display panel. To turn the system back on, press the Power button.

## Using Stand by

Follow these steps to power down the computer using the Stand by:

- 1 Click **Start**, select **Shut down computer**.

The Turn off computer box appears.

- 2 Click **Stand By**.



*Sample Shut down computer dialog box*

The computer saves the status of all open programs and files to memory, turns off the display, and goes into a low-power mode. The on/off light blinks to indicate the machine is in Stand by mode.

---

**NOTE**

If you power down using the Stand by and the battery discharges fully, your information will be lost. Be sure to save your work first.

---

## Going into Stand by mode more quickly

In addition, you can put the computer into Stand by mode by either pressing the power button or closing the display panel. You can also specify an amount of time after which the computer automatically goes into Stand by mode.

To use any of these methods, you first need to enable them in Toshiba's Power Saver utility.

- 1** Open the **Start** menu, then click **Control Panel**.
- 2** Click the **Performance and Maintenance** icon, and then click the **Toshiba Power Management** icon.
- 3** Click the **Advanced** tab.
- 4** Select **Stand By** for the options you want.

### When I press the power button

Set this option to **Stand By** to put the computer into Stand by mode when you press the power button.

### When I close the lid

Set this option to **Stand By** to put the computer into Stand by mode when you close the display panel.

- 5** Click **OK**.
- 6** Close the Control Panel.

## Starting again from Stand by

To start the computer from Stand by mode, press the power button. The computer returns to the screen you were using.

If you put the computer in Stand by mode by closing the display panel, you can start it again by opening the display panel.

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## Toshiba's online resources

Toshiba maintains a number of online sites to which you can connect. These sites provide information about Toshiba products, give help with technical questions, and keep you up to date with future upgrades. For more information, see “[Contacting Toshiba](#)” on page 244.

# Chapter 4

## Mobile Computing

This chapter covers all aspects of using your computer while traveling.

### Toshiba's energy-saver design

Your computer enters a low-power standby mode when it is not being used, thereby conserving energy and saving money in the process. It has a number of other features that enhance its energy efficiency.

Many of these energy-saving features have been set by Toshiba. We recommend you leave these features active, allowing your computer to operate at its maximum energy efficiency, so that you can use it for longer periods while traveling.

### Running the computer on battery power

The computer contains a removable Lithium Ion (Li-Ion) high-capacity battery that provides power when you are away from an AC outlet. You can recharge it many times.

## Battery Notice

Battery life may vary depending on applications, power management settings and features utilized. Recharge time varies depending on usage. The battery may not charge while the computer is consuming full power.

After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries. To purchase a new battery pack, see your accessories information that shipped with your computer. To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at [pcsupport.toshiba.com](http://pcsupport.toshiba.com).

To ensure that the battery maintains its maximum capacity, operate the computer on battery power at least once a month until the battery is fully discharged. Please see “[Maximizing battery life](#)” on page 113 for procedures. If the computer is continuously operated on AC power, either through an AC adapter or a docking station (if applicable to your system), for an extended period (more than a month) the battery may fail to retain a charge. This may shorten the life of the battery, and the battery light may not indicate a low-battery condition.

In addition, the computer has an internal real-time clock (RTC) battery. The RTC battery powers the RTC memory, which stores your system configuration settings and the current time and date for up to a month while the computer is turned off.

---

**NOTE**

For optimum DVD performance, Toshiba recommends that you play DVDs while running on AC power rather than on battery power.

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## Power management

Your computer ships with the power management options preset to a configuration that will provide the most stable operating environment and optimum system performance for both AC power and battery modes.

**CAUTION**

Changes to these settings may result in system performance or stability issues. Users who are not completely familiar with the power management component of the system should use the preset configuration. For assistance with setup changes, contact Toshiba's Global Support Centre.

## Charging the battery

**NOTE**

Battery charge time may vary depending on the applications, power management settings, and features used.

The battery needs to be charged before you can use it to power the computer.

To charge the battery, plug the computer into a live wall outlet. It takes several hours to charge the battery with the computer off. It takes much longer to charge the battery while the computer is on.



**TECHNICAL NOTE:** The battery does not charge while the computer is consuming full power.

The battery may not start charging immediately if:

- ❖ The battery is extremely hot or cold.

---

To ensure that the battery charges to its full capacity, wait until it reaches room temperature (50 to 80 degrees Fahrenheit, 10 to 26 degrees Celsius).

- ❖ The battery is almost completely discharged.

Leave the power connected, and the battery should begin charging after a few minutes.

---



HINT: Once the battery is fully charged, we recommend that you operate your computer on battery power until the battery discharges completely. Doing this extends battery life and helps ensure accurate monitoring of battery capacity.

---

## Charging the RTC battery

The computer contains an internal battery that provides power for the real-time clock (RTC) and calendar.

During normal use, the main battery keeps the RTC battery adequately charged. Occasionally, the RTC battery may lose its charge completely, especially if you have had the computer turned off for a long time.

If the RTC battery is low, the real-time clock and calendar may display the incorrect time and date, or stop working.

To recharge the RTC battery, plug in the computer and leave it turned off for at least 48 hours.

---

**NOTE**

When Hibernate mode is enabled and the RTC battery is completely discharged, a warning prompts you to reset the real-time clock.

---



TECHNICAL NOTE: The RTC battery does not charge while the computer is turned off, even when AC power is attached.

## Monitoring battery power



- The battery light indicates the battery's current charge. The indicator light:
- ❖ Glows green when the battery is fully charged
  - ❖ Glows amber while the battery is being charged
  - ❖ Does not glow if the external power source is disconnected or if the battery is completely discharged

## Determining remaining battery power

### NOTE

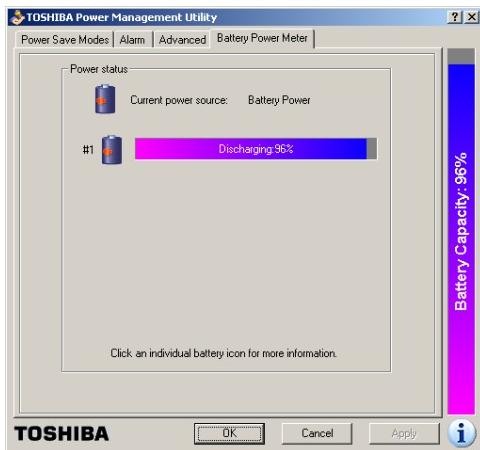
Wait at least 16 seconds after turning on the computer before trying to monitor the remaining battery power. The computer needs this time to check the battery's remaining capacity and perform its calculations.

- 1 Click Start, Control Panel, then Performance and Maintenance.
- 2 Double-click the Toshiba Power Management icon.



The current power source and battery power remaining section displays the current charge state of the battery. The value displays as a percentage of remaining battery charge.

- 
- 3 Click the Battery Power Meter tab.



*Sample Toshiba Power Management Battery Power Meter tab*



**TECHNICAL NOTE:** The computer drains the battery faster at low temperatures. Check your remaining charge frequently if you are working in temperatures below 50 degrees Fahrenheit.

The computer calculates the remaining battery charge based on your current rate of power use and other factors such as the age of the battery.

---

## Conserving battery power

How long a fully charged battery lasts when you are using the computer depends on a number of factors, such as:

- ❖ How the computer is configured
- ❖ How much you use the display panel instead of an external monitor
- ❖ How much you use the hard disk and other drives

- ❖ Whether you use any optional devices to which the battery supplies power, such as a PC Card
- ❖ Where you are working—since operating time decreases at low temperatures

Toshiba's power-saving options greatly increase the length of time you can use the computer before it becomes necessary to recharge the battery.

Toshiba has combined these options into preset power usage modes.

## What to do when the battery runs low

When the battery runs low you can:

- ❖ Plug the computer into an external power source and recharge the battery.
- ❖ Put the computer in Hibernate mode and replace the battery with a charged spare.
- ❖ Save your work and turn off the computer.

If you don't manage to do any of these things before the battery completely runs out of power, the computer automatically enters Hibernate mode and turns itself off. Hibernate mode keeps track of where you were so, when you turn on the power again, you can continue where you left off.

The computer stores the information on what you were doing until the battery runs out of power. If you have Hibernate mode enabled (the default), the computer copies the details of your open programs and files to the hard disk before shutting down.

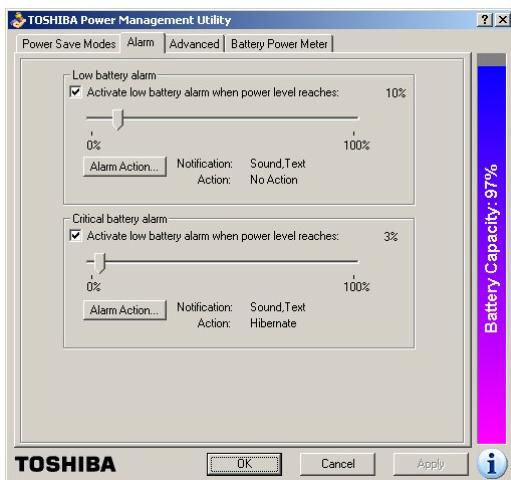
## Setting battery alarms

Your computer can be configured to warn you when the battery is running low.

You can set multiple alarms. Each alarm can be set to alert you when a specified percentage of remaining battery power has been reached. You can set how the warning occurs: sound an alarm, display a message, both, or none. You can also set the computer to enter Standby mode or Hibernate mode or to completely power down when the alarm goes off.

To set an alarm:

- 1** Click **Start, Control Panel, then Performance and Maintenance.**
- 2** Double-click the **Toshiba Power Management** icon.
- 3** Click the **Alarm** tab and set the alarm, as desired.



*Sample Toshiba Power Management Alarm tab*

## Changing the main battery

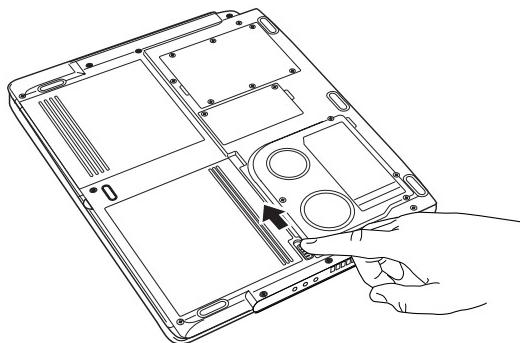
When your battery power is running low, you have two options—connect the computer to an AC power source or install a charged battery.

**CAUTION**

When handling a battery, be careful not to drop it or short-circuit its terminals.

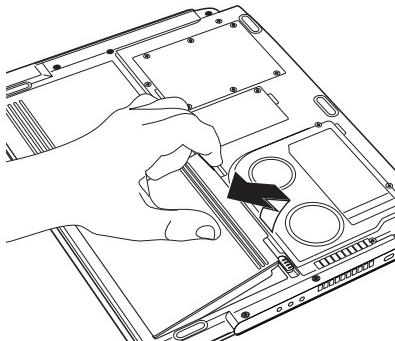
## Removing the battery from the computer

- 1 Save your work.
- 2 Turn off the computer via the **Start** menu or place it in Hibernate mode according to the instructions in “[Using Hibernation](#)” on page 97.
- 3 Remove all cables connected to the computer.
- 4 Close the display panel and turn the computer upside down with the front side of the computer facing you.
- 5 Push and hold the battery release latch.



*Releasing the battery*

- 
- 6 While still holding the release latch in the open position, gently lift the battery pack out of the computer.



*Removing the battery*

**A WARNING**

If the battery is leaking or its case is cracked, put on protective gloves to handle it, and discard it immediately following the advice in “[Disposing of used batteries safely](#)” on page 115.

---

## Taking care of your battery

The following sections offer tips on how to take care of your battery and prolong its life.

### Safety precautions

- ❖ If the battery pack produces an odor, overheats or changes color or shape while it is being used or charged, turn off the computer’s power immediately and disconnect the power cord from the power socket. Carefully remove the battery pack from the computer.
- ❖ Do not try to disassemble a battery pack.

- ❖ Do not overcharge or reverse charge a battery. Overcharging will shorten its life, and reverse charging could damage it.
- ❖ Avoid touching the metal terminals of the battery with another metal object. Short-circuiting the battery can cause it to overheat and may cause damage to the battery or the computer.
- ❖ Do not incinerate a spent battery, as this could cause it to explode and release toxic materials.
- ❖ If a battery is leaking or damaged, replace it immediately. Use protective gloves when handling a damaged battery.
- ❖ To replace the main battery, use an identical battery that you can purchase through [toshiba.com](http://toshiba.com).
- ❖ Reverse Polarity should be avoided with all batteries. The main battery is designed so that it cannot be installed in reverse polarity.
- ❖ Charge the battery pack only in the computer.
- ❖ When you install the battery pack, you should hear a click when it is inserted properly.
- ❖ Do not expose the battery pack to fire. The battery pack could explode.

## **Maximizing battery life**

To maximize the life of your battery pack:

- ❖ At least once a month, disconnect the computer from a power source and operate it on battery power until the battery pack fully discharges. Before doing so, follow the steps below:
  - 1** Turn off the computer's power.
  - 2** Disconnect the AC adapter and turn on the computer's power. If it does not turn on, go to step 4.

- 
- 3 Operate the computer on battery power for five minutes. If the battery pack has at least five minutes of operating time, continue operating until the battery pack is fully discharged. If the battery light LED flashes or there is some other warning to indicate a low battery, go to step 4.
  - 4 Connect the AC adapter to the computer and the power cord to a power outlet. The DC-IN or AC power-light LED should glow green, and the Battery LED should glow amber to indicate that the battery pack is being charged. If the DC-IN or AC power-light indicator does not glow, power is not being supplied. Check the connections for the AC adapter and power cord.
  - 5 Charge the battery pack until the Battery LED glows green.
    - ❖ If you have extra battery packs, rotate their use.
    - ❖ If you will not be using the system for an extended period, more than one month, remove the battery pack.
    - ❖ Disconnect the AC adapter when the battery is fully charged. Overcharging makes the battery hot and shortens life.
    - ❖ If you are not going to use the computer for more than eight hours, disconnect the AC adapter.
    - ❖ Store spare battery packs in a cool dry place out of direct sunlight.

## **Disposing of used batteries safely**

The life of a battery pack should last for years. When the battery pack needs replacing, the main battery light flashes amber shortly after you have fully recharged the battery.

You must discard a battery if it becomes damaged.

### **A WARNING**

The computer's main battery is a Lithium Ion (Li-Ion) battery, which can explode if not properly replaced, used, handled, or disposed of. Putting spent batteries in the trash is not only irresponsible, it may be illegal. Dispose of the battery as required by local ordinances or regulations.

Use only batteries recommended by Toshiba.

After repeated use, the batteries will finally lose their ability to hold a charge and you will need to replace them. Under federal, state and local laws, it may be illegal to dispose of old batteries by placing them in the trash.

Please be kind to our shared environment. Check with your local government authority for details regarding where to recycle old batteries or how to dispose of them properly. If you cannot find the information you need elsewhere, call Toshiba at: 1 (800) 457-7777.

## Traveling tips

The environmental precautions listed in “[Selecting a place to work](#)” on page 47, also apply while traveling.

- ❖ Never leave your computer on a sunny ledge or in a place where it could get wet or covered in dust.
- ❖ Always travel with the computer in a carrying case. Toshiba offers a choice of carrying cases for the computer. They all provide plenty of extra space for manuals, power cables, and compact discs. Contact your authorized Toshiba representative for more information.



TECHNICAL NOTE: When traveling by air, you may be required to pass your notebook through airport security equipment. The X-ray equipment will not harm your computer.

# Chapter 5

## Getting to Know the Windows® XP Operating System

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This chapter introduces the Windows® XP operating system by guiding you through a few basic tasks.

If you have used a Windows® operating system before, you will find the Windows® XP operating system familiar.

Whether you have used a Windows® operating system or not, the skill and confidence you will gain from this chapter will more than offset the short amount of time spent going through these lessons.

As you explore your computer's operating system further, you will often discover alternative ways of accomplishing a particular task.

For more detailed information on your operating system, refer to the Microsoft® Windows® XP operating system documentation that came with your computer.

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HINT: The illustrated examples in this guide may appear slightly different from the screens displayed by your system. However, the differences are not significant and do not indicate any change in the functionality of your system.

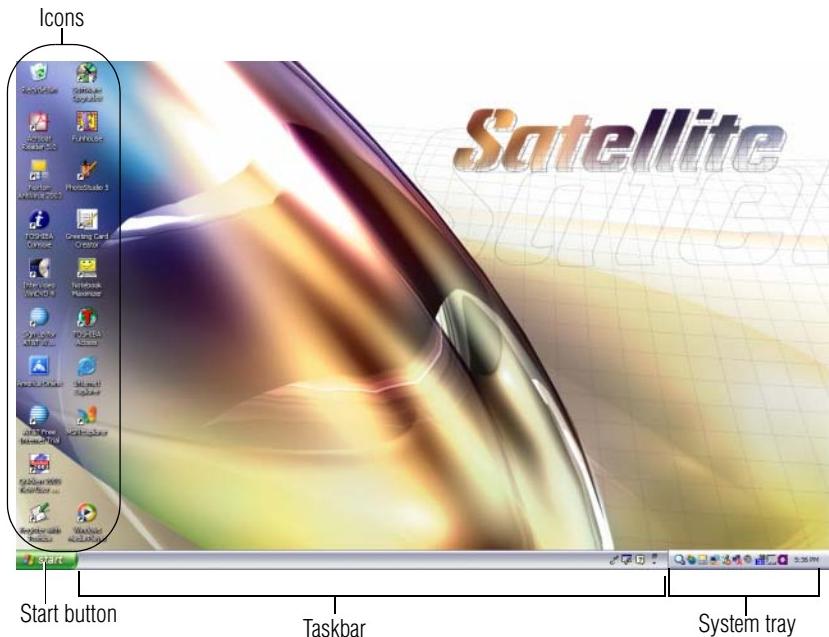
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# Lesson 1: Exploring the desktop

The desktop is the launching pad for everything you can do in the Windows® XP operating system. You use its features to start programs, find documents, set up system components, and perform most other computing tasks.

## Finding your way around the desktop

Your computer's desktop includes several standard features: icons, Start button, shortcut tray, taskbar, system tray, and background pattern.



## *Sample Desktop*

## Icons

An icon represents a folder, file, or program that can be quickly activated by double-clicking on it.

You can create a new desktop icon for any folder, file, or program by dragging the element's icon from its location in a window to the desktop area.

The icons initially displayed on your system desktop include:



Toshiba Access—Opens a window with links to software updates, services and support, and other important benefits.



Recycle Bin—Holds files you've deleted using the Windows Explorer. You may retrieve these files until you empty the Recycle Bin.

Your desktop may contain other icons depending on your configuration. See Windows® XP online Help and Support for more specific information on each icon and how to use it.

## Start button

You use the Start button to:

- ❖ Start programs
- ❖ Access Microsoft® Windows® XP operating system update information
- ❖ Open recently accessed documents
- ❖ Adjust system settings
- ❖ Search for files
- ❖ Access Windows Help and Support Center
- ❖ Run programs
- ❖ Suspend system activity and shut down the computer

For more information on starting programs, see “[Lesson 6: Starting programs](#)” on page 127.

## Taskbar

Each time you open a program, a button associated with that program appears on the taskbar. With some programs, a button appears on the taskbar for each document or window you open. You can use these buttons to quickly switch between the programs or windows.

To make a program or window the active one, click the program's or window's button on the taskbar.

## System tray

The System tray displays icons of tasks or programs that run continuously in the background. To learn more about each task, position the cursor over the icon for a few moments and a short description of the task appears.

Typical tasks in the System tray are Current time, Power usage mode, and speaker volume.

To activate a specific task, double-click the appropriate System tray icon.

## Windows® XP file system

All files on your computer are organized for accessibility using a hierachal file system.

Programs, documents, and other data are held in *files*. These files can be grouped together in *folders*, and folders can be grouped inside other folders for convenient organizing. All the files and folders reside in your computer on a storage *device*, such as a disk drive.

You can think of your computer storage system in terms of office equipment. You have a file cabinet (device), that contains folders, and each folder may contain documents. Your office may have more than one file cabinet, just as your computer may have more than one disk drive.

Computers can be connected together to form a *network*, so that programs, documents and other data can be quickly and easily shared between computers.

You can use the My Computer feature on the Start menu to access any file in the Windows® file system.

For more information, read the Microsoft documentation that comes with your computer.

## Lesson 2: Using the TouchPad and control buttons together

The “Getting Started” chapter introduced you to the TouchPad, which is your basic tool for moving around the screen. This lesson lets you practice using the TouchPad and control buttons in tandem.

- 1 Using the TouchPad, move the pointer to the **Start** button, then click the primary button (usually the left) to open the **Start** menu.

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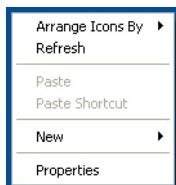
**NOTE**

In this guide, the term “click” refers to the primary button, which is usually the left-hand button. You can also double-tap the touch pad surface to perform the same function. Instructions requiring the secondary button specifically mention that button. For example, “click the secondary button.”

---

- 2 Click an empty area of the desktop to close the **Start** menu.
- 3 With the pointer in an empty area of the desktop, click the secondary button (the right-hand button) to open the desktop shortcut menu.

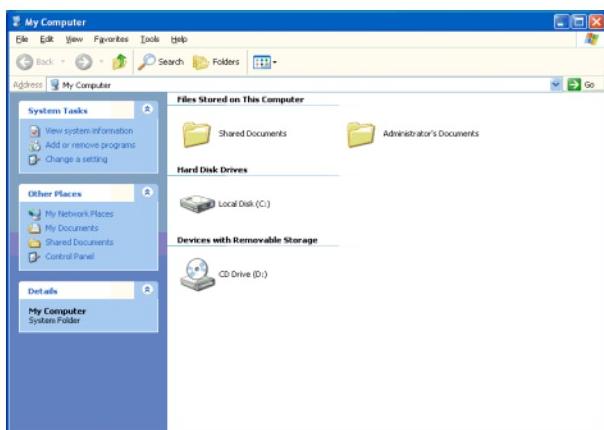
As the name implies, shortcut menus provide quick access to many operating system features.



*Sample desktop shortcut menu*

- 4 Click an empty area to close the shortcut menu.
- 5 Use the TouchPad to move the pointer to the **Start** button. Click **Start**, and select **My Computer**.

The My Computer window appears.



*Sample My Computer window*

-  6 Now click the **Close** button in the upper-right corner of this window.

The operating system closes the My Computer window.

**NOTE**

If the taskbar is locked, you need to unlock it. To unlock the taskbar, place the cursor on the taskbar and click the secondary button. Clear “Lock the Taskbar.”

- 7 Click an empty area of the taskbar at the bottom of the screen and, while holding down the primary button, use the TouchPad to drag the pointer to the right edge of the desktop, then release the primary button. (This process is known as “clicking and dragging.”)

The taskbar moves from the bottom to the right edge of the desktop.



*Sample desktop with the taskbar on the right*



HINT: You can move the taskbar to any of the desktop's four edges.

- 8 Click the taskbar once again and drag it back to the bottom of the desktop.

## Lesson 3: Learning about the Internet

This lesson demonstrates how to access a Web page from a window and from the taskbar.

The lesson assumes you have an account with an Internet Service Provider (ISP).

### Opening a Web page from a window

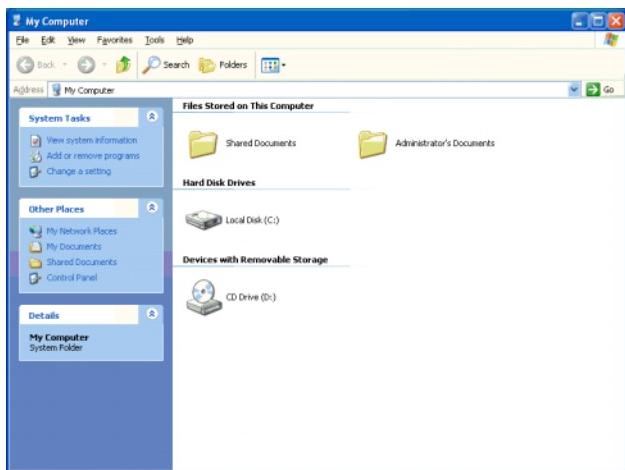
The most common way to open a Web page is by typing a Web address in the address line of the Web browser itself. But you can also type a Web address in the My Computer window.

- 1 Click **Start**, then double-click **My Computer**.

The My Computer window appears.

- 2 On the **View** menu, point to **Toolbars**, then click **Address Bar** if it is not checked.

The operating system displays the address bar. It indicates that you are in “My Computer.” You can also type a Web address in the address line.



Sample My Computer window

## Lesson 4: Creating a new document

This lesson teaches you how to create a text file without having to first open a program.

- 1 Move the pointer to an empty area of the desktop, then click the secondary button.

The operating system displays a shortcut menu of commands applicable to the desktop.

- 2 Click **New**, then click **Text Document**.

The operating system creates an icon on the desktop called New Text Document with the icon name highlighted.

- 3 To give your document a meaningful name, type My New Doc.txt and press Enter.
- 4 Double-click the **My New Doc** icon.

The operating system opens the new document in Notepad—the text editor built into the operating system.



*Sample Notepad window*

Notice that when the document opens, there is a new button on the taskbar that reads My New Doc- Notepad (the name may be too long to fit into the taskbar space but, if you point to the name, the complete name is visible). By displaying buttons like this one, the taskbar helps you keep track of the programs and files you currently have open.

To learn more about Notepad, click **Help** or open the Help menu by pressing F1. For now, leave Notepad open and go on to the next lesson.

## Lesson 5: Creating a new folder

---



**DEFINITION:** A folder is an area where you can store documents and other types of files. It is analogous to a file folder stored in a file cabinet. In this case, a disk drive in the computer is the file cabinet.

---

The operating system stores documents and programs in folders. It even stores other folders in folders. In this lesson, you will create a folder in which to store your new document.

- 1 Move the pointer to an empty area of the desktop, then click the secondary button.

The operating system displays the desktop shortcut menu.

- 2 Click **New**, then click **Folder**.

The operating system creates an icon on the desktop called **New Folder** with the icon name highlighted.

- 3 Type a name for the folder, such as **My Folder**, then press Enter.



- 4 Close the Notepad document you just created by clicking the **Close** button on the right side of the Notepad title bar.

The operating system displays the document as an icon on the desktop.

- 5 Click the document icon and drag it toward your New Folder icon. Position the document icon over the New Folder icon until it changes color, then release the primary button.

The outline of the document icon moves across the desktop and disappears into the folder.

- 6 To see your document, double-click the folder icon.  
A window opens and displays the contents of the folder.
- 7 Close the window by clicking its **Close** button and continue with the next lesson to learn how to start programs.

## Lesson 6: Starting programs

Usually, you will know which program you want to use for a particular task.

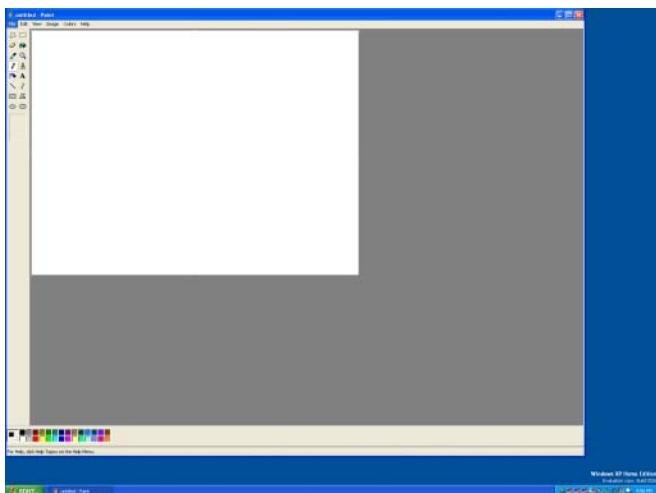
This lesson teaches you how to launch programs from the Start menu, using two of the programs that are built into the Windows® XP operating system: Paint and Windows Explorer.

- 1 Click **Start**, then point to **All Programs**.

The operating system displays a list of program folders.

- 2 Point to **Accessories**, then click **Paint**.

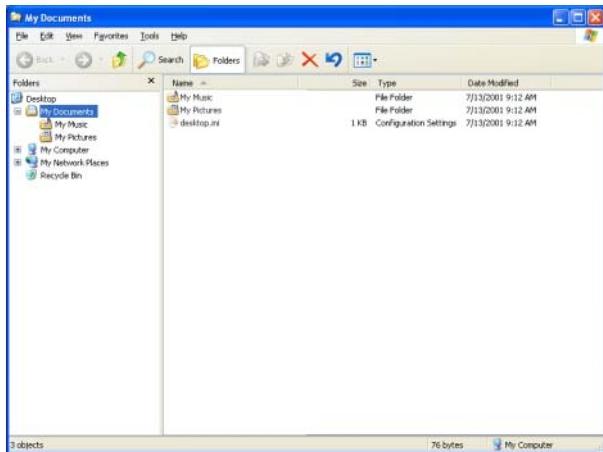
The operating system opens Paint—a basic drawing program.



*Sample Paint window*

- 3 To open the second program, click **Start**, then click **All Programs**.
- 4 Point to **Accessories**, then click **Windows Explorer**.

The operating system opens Windows Explorer, which provides access to all your computer's resources. For example, it lets you see all the files in a particular folder on the computer's hard disk.



*Sample Windows Explorer window*

Notice the taskbar now has two buttons on it—one for Paint and one for Windows Explorer.

- 5 Click the **Paint** button on the taskbar.

The operating system displays the Paint program.

The operating system places the active window on top of other windows on the desktop unless you have selected a different display option. You can move back and forth between the two programs by alternately clicking each button.

## Lesson 7: Resizing, repositioning, and hiding windows

If you have followed the lessons in this chapter, you now have a screen with several program windows open. You can organize these windows by resizing and repositioning windows so that you can see more than one of them at a time. You can also hide windows by removing them from the desktop without actually closing your document or program.

This lesson introduces several ways to adjust the size, shape, and position of windows open on the desktop.

## Using the taskbar

If you have applications open on the desktop, you can rearrange them by pointing to the taskbar using the TouchPad and clicking the secondary button. The Windows® XP operating system provides these options:

- ❖ Move windows
- ❖ Size windows
- ❖ Minimize all windows—display only the taskbar buttons
- ❖ Maximize windows
- ❖ Close windows

Choose your option depending on how you wish to set up your desktop.

## Minimizing and maximizing windows

- 1 To make the Windows Explorer window the active window, click the **Windows Explorer** button on the taskbar.

The operating system highlights the Windows Explorer title bar to show that Windows Explorer is the active window.



- 2 Click the **Minimize** button at the top-right of the Explorer window to hide the window.

Windows Explorer disappears from the desktop. However, it is still open, as you can see from the taskbar.



---

HINT: Minimizing program windows is a good way to clean up the desktop without actually closing programs.

---



- 3 Click the **Maximize** button in the top-right corner of the Paint window.

The Paint window expands to fill the screen, hiding everything except the taskbar. Notice that the Maximize button has changed. It is now called the Restore Down button.



HINT: Maximizing a program is a good way to work when you are only using that program and do not want any distractions on the screen.

## Resizing and moving windows



- 1 Click the **Restore Down** button in the top-right corner of the Paint window.

Paint returns to its previous size and location. Notice that the Restore Down button has changed back into the Maximize button.

For the next few steps assume that you want to be able to see both Paint and Windows Explorer at the same time.

- 2 Move the pointer to the right-hand edge of the Paint window.

The pointer changes to a two-headed arrow.

- 3 Click and drag the edge of the window until it takes up just less than half the width of the desktop.

- 4 Click the title bar of the Paint window and drag it to the left side of the desktop.

You can move any window by clicking its title bar and dragging it.

- 5 Click **Windows Explorer** button on the taskbar.

- 6 Repeat steps 3 and 4 to change the size and position of Windows Explorer, placing it on the right side of the desktop.

Now that the windows are side by side, you can see how you could refer to one window while working in the other.

Resizing and moving windows allows you to rearrange the desktop to suit your needs. Experiment with different sizes and placements of windows to find the best arrangement for your work.



Sample Windows Explorer windows

At this point you have two programs open on the desktop. The next lesson shows you how to close them.

## Lesson 8: Closing programs

Once you are finished working with a document or program, it is a good idea to close it. While you can run several programs at the same time, having a large number of programs and documents open simultaneously can slow down your computer.

---

This lesson teaches you how to close the programs you opened earlier in this tutorial.

To close the programs:



- 1 Click the **Close** button at the top-right of the Explorer window.

Windows Explorer closes, removing the Explorer button from the taskbar as well.

- 2 Close Paint and the My Computer window (assuming it is still open) by clicking the **Close** buttons for each program.



---

HINT: Always save your work before you close a program.

---

## Lesson 9: Creating shortcuts

By adding shortcuts to your desktop, you can open programs or files with the click of a button. You will probably want to create shortcuts for the programs you use most frequently. This lesson explains how to create shortcuts using two Windows® accessories, Calculator and Character Map, as examples.

### Creating a shortcut to the Calculator

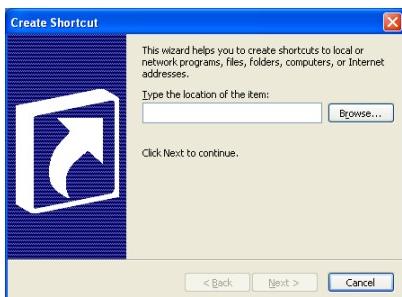
Use this method when you know the name and location of the program file to which you would like to create a shortcut.

- 1 Move the pointer to an empty area of the desktop, then click the secondary button.

The operating system displays the desktop shortcut menu.

- 2 Click **New**, then click **Shortcut**.

The operating system displays the Create Shortcut dialog box.



*Sample Create Shortcut dialog box*

- 3** In the **Command line** box, type c:\windows\system32\calc.exe and click **Next**.

The operating system prompts you to select a name for the shortcut.

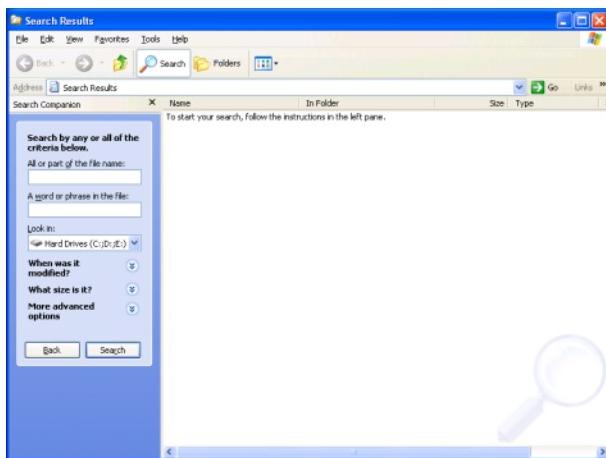
- 4** Type Calculator and click **Finish**.

The operating system displays the new shortcut on your desktop.

## Creating a shortcut to the Character Map

Use this method when you don't know the name and location of the program file.

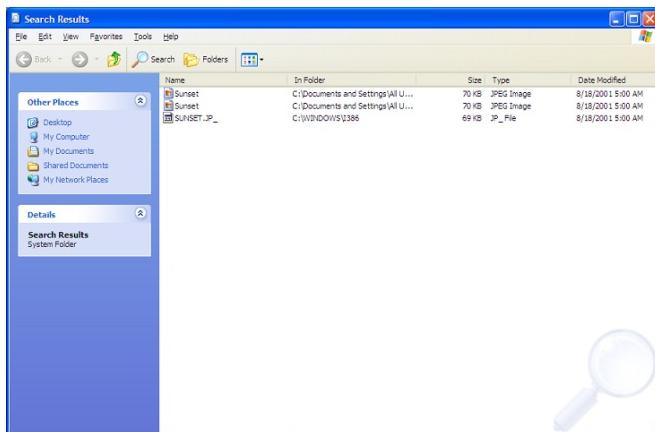
- 1** Click **Start**, then point to **Search**.



Sample Search options on the Start menu

## 2 Click All Files and Folders.

The operating system displays the Search Results dialog box.



Sample Search Results dialog box



HINT: Search also allows you to perform searches on the Internet.

---

- 3 Type char in the **All or part of the file name:** text box, and then click **Search**.

The operating system displays a list of all the files with “char” in their names.

- 4 Click the **Character Map** file with the secondary button and drag it to the desktop.

A shortcut menu appears.

- 5 Click **Create Shortcut here**.

A shortcut to the Character Map appears on your desktop.

Clicking a shortcut icon opens the program or folder immediately. You can place as many shortcuts on your desktop as you find useful.

---



HINT: The Character Map is a useful tool when you want to add a special character to a document.

---

## Lesson 10: Changing the screen saver

You can personalize the background area of your desktop with pictures, patterns, or colors. The background is considered a “property” of your desktop. This lesson will not only teach you how to change the background, but will also introduce you to properties.

The operating system treats all windows, icons, programs, drives, etc. as self-contained objects, each with its own set of properties (such as size, position on-screen, and color). Many

of these properties can be customized to meet your particular needs and tastes.



**DEFINITION:** An object is an independent block of data, text, or graphics that was created by an individual application.

This lesson introduces object properties by showing you how to change one of the properties of the desktop—the screen saver. This is a continuously changing pattern that appears on the screen during pauses in your work.

- 1 Move the pointer to an empty area of the desktop, then click the secondary button.

The operating system displays the desktop shortcut menu.

- 2 Click **Properties**.

The operating system opens the Display Properties dialog box.



*Sample Display Properties dialog box*

- 3 Click the **Screen Saver** tab.

- 4 Click the arrow beside the current option to open the screen saver list box.
- 5 Scroll through the screen saver options by clicking the scroll arrows in the list box.
- 6 Try a screen saver pattern by clicking a name in the list box.

The operating system displays your selection in the monitor above the list box. Try several patterns.

- 7 To apply a pattern to your desktop, click **Apply**.
- 8 After you have chosen a screen saver pattern and applied it to your desktop, click **OK**.

The operating system returns you to the desktop.

You can view any object's properties by clicking the object with the secondary button, then choosing **Properties** from the shortcut menu that appears.

The next lesson explains how to set two other properties—the date and time.

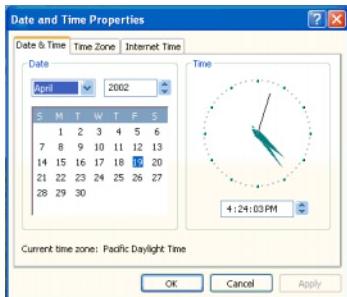
## Lesson 11: Setting the date and time

You initially set the computer's date and time properties when you turned the computer on for the first time and set up the operating system.

To change the date and time settings:

- 1 Click **Start**, then click **Control Panel**.
- 2 Click the **Date, Time, Language, and Regional Options** icon.
- 3 Click the **Date and Time** icon.

The operating system displays the Date and Time Properties dialog box.



*Sample Date and Time Properties dialog box*



HINT: To open the Date and Time Properties dialog box more quickly, either click the time display on the taskbar with the secondary button, then click Adjust Date and Time, or double-click the time display.

- 4 Click the **Date & Time** tab and set the correct month, year, day, and time.
- 5 Click the **Time zone** tab, then the drop-down list box and set your time zone.
- 6 Click **OK**.

There is a third tab, Internet Time, which when selected allows you to have Windows® XP automatically synchronize your time. However, you need to be connected to the Internet for this function to work.

Continue with the next lesson to finish cleaning up the desktop.

---

## Lesson 12: Removing objects from the desktop

Earlier in this tutorial, you created a new icon on the desktop. Since everything you have done to this point has been just practice, you may want to return the desktop back to its original uncluttered state. This lesson explains how to remove objects from the desktop and introduces the Recycle Bin.

- 1** Click the **New Folder** icon you created, drag it until it is over the Recycle Bin icon and it changes color, then release the primary button.

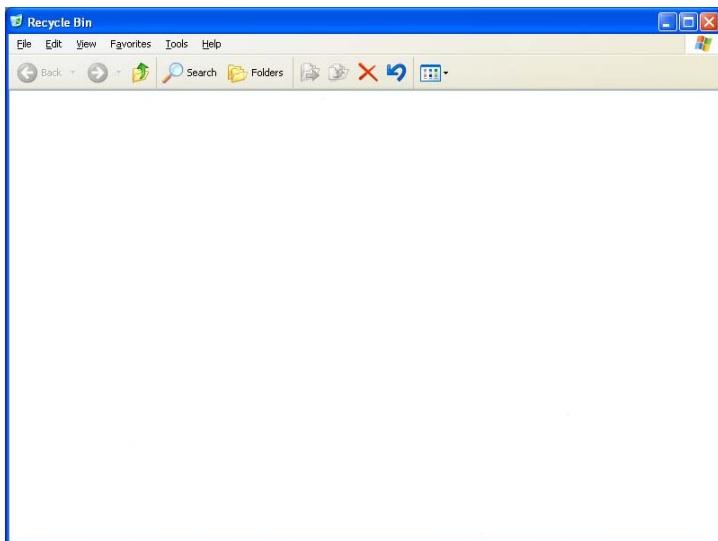
The icon disappears. But it is not really gone. It is merely set aside in the Recycle Bin so that you can restore or delete it later.

- 2** Repeat step 1 for any other icons you created during this tutorial.

Each icon disappears as you drop it on the Recycle Bin.

- 3** Double-click the **Recycle Bin** icon.

The operating system opens the Recycle Bin window. Notice that all the icons you dropped on the Recycle Bin are listed.



*Sample Recycle Bin open on the desktop*

- 4 To completely remove an object, select it, and then click **File, Delete**.

The object is permanently deleted from the Recycle Bin.

Later on—in your real work, not in this tutorial—you will use the Recycle Bin to delete other objects such as folders, documents, and sometimes even programs. Still, the process is the same. Just drag an object’s icon to the Recycle Bin.

If you change your mind and want to restore an object you sent to the Recycle Bin, select the object with the secondary button and click **Restore Down**. The operating system restores the object to the place from which it was deleted.

When you are absolutely certain that you never want to see it again, delete it from the Recycle Bin.

To delete everything from the Recycle Bin at once, choose **Empty Recycle Bin** from the File menu. Click **Yes** to confirm that you are sure.



HINT: Empty the Recycle Bin periodically. Even though an item is moved to the Recycle Bin, it still uses valuable space on the hard disk drive until it is deleted from the Recycle Bin.

---

## Lesson 13: Using System Restore

The System Restore feature allows you to return your computer to the way it was configured on a specific date or time, a “restore point.” This is useful if you are reconfiguring your computer for new hardware or software. In the event that your hardware or software causes your computer to malfunction, you can remove the offending item(s) and restore the system to the state it was in at the preset time.

To get to System Restore, click **Start**, point to **All Programs**, **Accessories**, **System Tools** and click **System Restore**.

The System Restore Welcome screen appears.



Sample System Restore Welcome screen

## *Lesson 14: If I am lost, what do I do?*

The operating system guides you through the process of storing your system settings for future use. It also guides you through restoring your system to the selected date or time.

## **Lesson 14: If I am lost, what do I do?**

This lesson teaches you how to use some of the Help and Support features in Windows® XP operating system.

# Windows® XP Help and Support Center

The Windows® XP operating system has a Help and Support facility. If you cannot figure out how to do something, the answer is probably only a few clicks away.

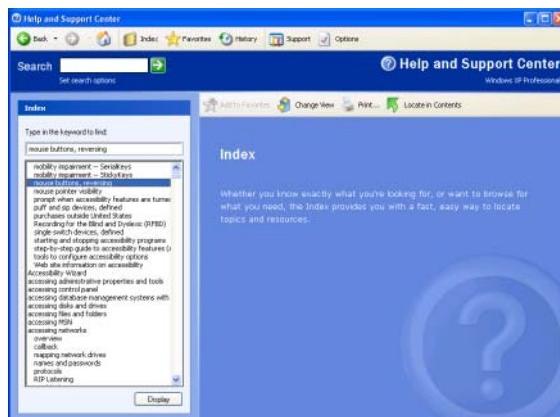
Assume that you want to draw a picture, but don't know how.

**1** Click Start, then click Help and Support.

The operating system opens the Help and Support Center window.

**2** If you do not see the index, click the **Index** button on the top of the screen.

Help and Support Center displays the Index.



*Sample Help and Support Center Index*

The left side of the screen contains the index. The text box above the index, where the cursor is flashing, lets you type in a topic you want to find in the index.

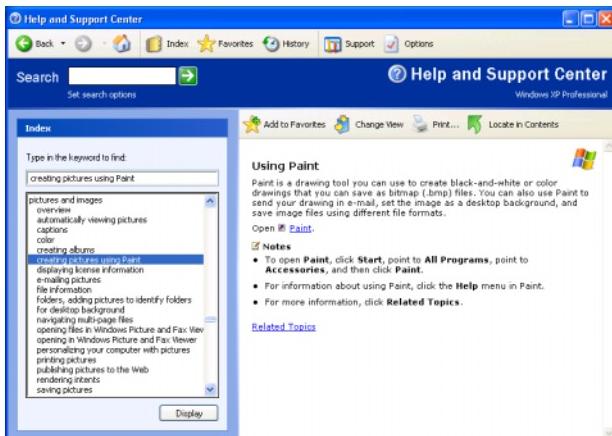
- 3** Type pictures in the **Type in the keyword to find:** text box.

Notice as you type that the index moves to locate what you typed. When you type the letter p, the topic list moves to the first entry that begins with P, and so on.

There are a number of topics listed under Picture. One of them, **Creating pictures using Paint**, looks promising.

- 4** Double-click **Creating pictures using Paint**.

Help opens a topic screen that gives a brief description of how to draw pictures, including an icon to start the Paint program.



*Sample Drawing help window*

- 5** Click the **Paint** link.

The operating system opens the Paint program.

Not every Help topic contains a hot link to start the program it is talking about. However, when you do encounter one, it provides a convenient way to start the

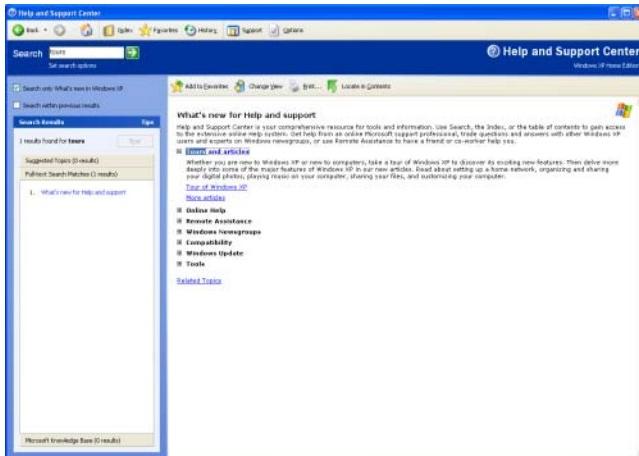
program to look at it while you read about the program in the Help topic.

## Using the online tours and tutorials

Whether you are new to computers or you have some experience, the Windows® XP Tours and Tutorials collection is a good place to start.

If you are not familiar with the Windows® XP operating system, start with “Windows XP Preview.”

“Learning about the benefits of Windows XP features” is a helpful introduction to the new features in the Windows® XP operating system.



*Sample Windows® XP Tours and tutorials window*

To start a Windows® XP tour or tutorial:

- 1 Click Start, then Help and Support.**
- 2 Click What's new in Windows XP.**
- 3 Click Taking a tour or tutorial.**
- 4 On the right pane, click Take the Windows XP tour.**

---

## Lesson 15: Turning off your computer

It is very important that you let the Windows® XP operating system shut down your computer. As it shuts down, the operating system performs a number of tasks that ensure that everything is in place the next time you turn on the computer. This lesson teaches you how to shut down the operating system and turn off your computer.

To let the operating system shut down your computer:

- 1 Click Start, then click Shut Down.**

The Turn off computer dialog box appears.

- 2 Click Shut Down.**

The computer shuts down.

There are other ways to shut down your computer. For more information, see “[Powering down the computer](#)” on page 93.

# Chapter 6

# Getting to Know the Windows® XP Media Center Edition

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This section introduces you to the Windows Media Center Edition, a complete multimedia center where you can play your entire library of audio, video, and picture media on your computer, using either your computer's keyboard, mouse, or the remote control. With the Media Center, you can:

- ❖ Watch TV or a DVD movie.
- ❖ Automatically record TV shows.
- ❖ Pause, rewind, and fast forward TV programs using the Media Center time shifting feature.
- ❖ Watch an instant replay.
- ❖ Play back your digital videos.
- ❖ View your digital pictures, or play them as a slide show.
- ❖ Browse, select, and play music CDs and DVD movies.
- ❖ Update the Television Program Guide from the Internet.

## Media Center Setup

This section shows you how to set up your computer to use the Media Center.

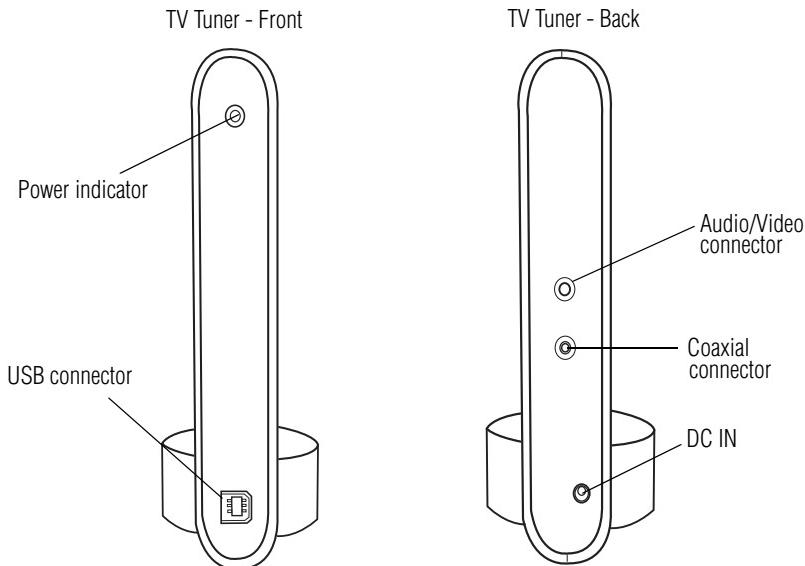
### Connecting the Computer to a Television

Your computer has TV-out capability, meaning you can connect it to a television and view the computer image on the television.

To connect your computer to a TV, you need an external TV tuner, and a audio/video cable. The type of cable depends on your TV.

To connect a TV to the computer:

- 1 Turn off the computer.



*TV Tuner connections*

- 2 Connect the AC adapter to the external TV tuner (DC IN).

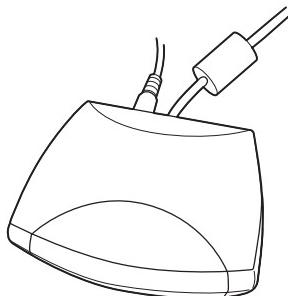
- 
- 3** Connect the AC adapter to a power source.
  - 4** Connect the square end of the USB cable to the computer's USB port.
  - 5** Connect a coaxial cable to the port on the TV tuner.
  - 6** Connect the TV cable from your set-top box to the connector on the coaxial cable.
  - 7** Turn on the TV, and then turn on the computer.

## **Connecting the External Remote Sensor**

The external IR remote sensor is a small device that connects to the computer and allows the remote control to work with the Media Center programs.

If you have a cable TV set-top box, satellite, or other set-top box that controls your TV signal, connect the remote sensor control cable to the remote sensor and position the end of it over the remote receiver on your cable box.

- 1** Connect the IR transfer cable to the port on the IR receiver.



*Sample IR receiver with cables attached*

- 2** Peel off the adhesive backing on the IR receiver and position the end of the control cable over the remote IR receiver window on your cable TV set-top box.
- 3** Connect the IR receiver USB cable to the computer's USB port.

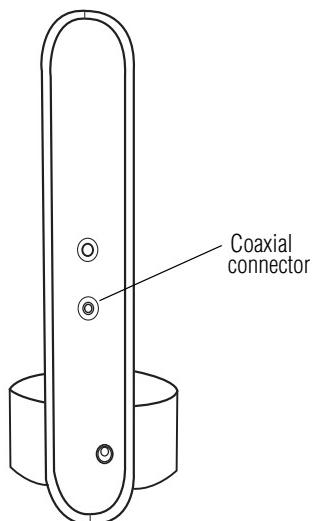
- 
- 4 Install batteries in the Windows Media Center remote control.

## Connecting the TV Signal Source

Connect the signal source for your TV using a TV (IN) coaxial connector as follows:

- 1 Plug the connector of a coaxial cable from your TV cable (wall or set-top box) into the coaxial connector on the external TV tuner on the computer, and carefully tighten it.

TV Tuner - Back



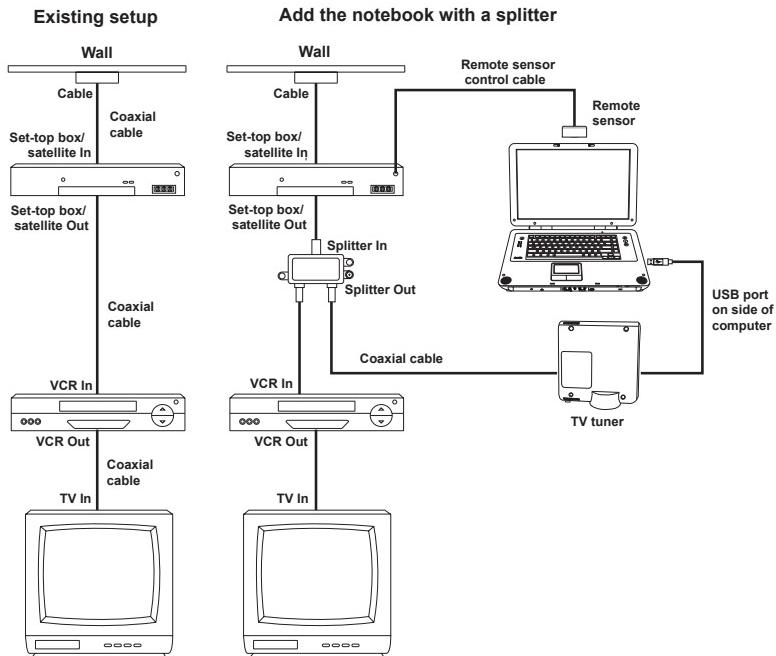
### *Location of the coaxial connector*

- 2 Turn on the TV and select the TV IN video source (refer to your TV set reference manual as necessary).
- 3 Select the signal source for TV in the Media Center program settings (refer to “[Changing the Media Center Settings](#)” on page 186.)

## Connecting the TV Signal Source When You Have an Existing Setup

This section shows you how to connect the signal source from the wall to a VCR to a TV using coaxial cable.

- 1 Remove the coaxial cable from the VCR input, and connect it to the input of a coaxial cable signal splitter (not included).
- 2 Connect two coaxial cables to the splitter outputs.
- 3 Connect one of the coaxial cables to the VCR input, and the other end to the TV connector on the back of the PC.



*Sample wall to VCR to TV setup*

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## Starting the Media Center

To start the Media Center:

- ❖ Click Start, and then click Media Center, or point the remote control at the remote sensor and press the Start button.

Media Center opens in full screen mode.

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**NOTE**

The first time you open Media Center, a setup wizard displays. From here, you can test your remote control and configure your Internet connection, TV signal, and Television Program Guide.

To complete the setup procedure you need to:

Be logged on as an administrator. For more information, refer to your Microsoft Help.

Have an Internet connection to download your television service provider's program guide.

Know your ZIP Code.

Provide the name of your television service provider, if you subscribe to either cable or satellite TV.

Provide the brand of your set-top box, if you use one.

If you have questions on using the setup wizard, click the Help button.

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### *Media Center Setup Wizard*

To complete the Media Center Setup, follow the wizard on-screen prompts. When the wizard finishes, the Media Center main window displays.

#### **NOTE**

You can run Media Center side by side with other Windows software programs. It's possible to browse through your pictures, watch videos, play music, and even record TV while using other Windows programs. Simply resize the Media Center windows as you would any other window. For more information, refer to your Windows Help.



*Sample Media Center main window*

The Media Center main window is the central point for controlling all Media Center features. With a quick click of the mouse or using your remote control, you can:

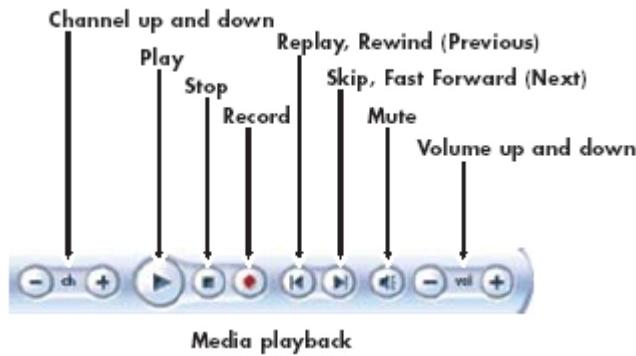
- ❖ Watch or record TV programs
- ❖ Listen to music
- ❖ Display your digital photos
- ❖ Watch your own digital movies
- ❖ Watch a DVD movie
- ❖ Change your Media Center Settings

When enjoying the Media Center, use the icons on the Title Bar to return to the Media Center main screen, go back to the previous screen, or to display the Media Center's online help.



*Sample Title Bar Icons*

Use the Media Playback controls at the bottom of the screen to control your movies, music, and photo displays.



*Media Playback controls*

## Navigating Media Center

In the Media Center windows, a selected item, such as a folder, file, or menu item is outlined with a green border.

To select items, use the arrow buttons on the remote control, and then the OK button to enter your selection.

If you have media playing, such as music or a television program, it displays in an inset window in the lower left corner. To switch from watching your media in the inset window to watching it in full screen mode, use the arrows on the remote control to select it and then press OK.

## Remote Control For Media Center

You can use your remote control with Media Center to play CDs, DVDs and videos; to view pictures; and to watch and record television programs.

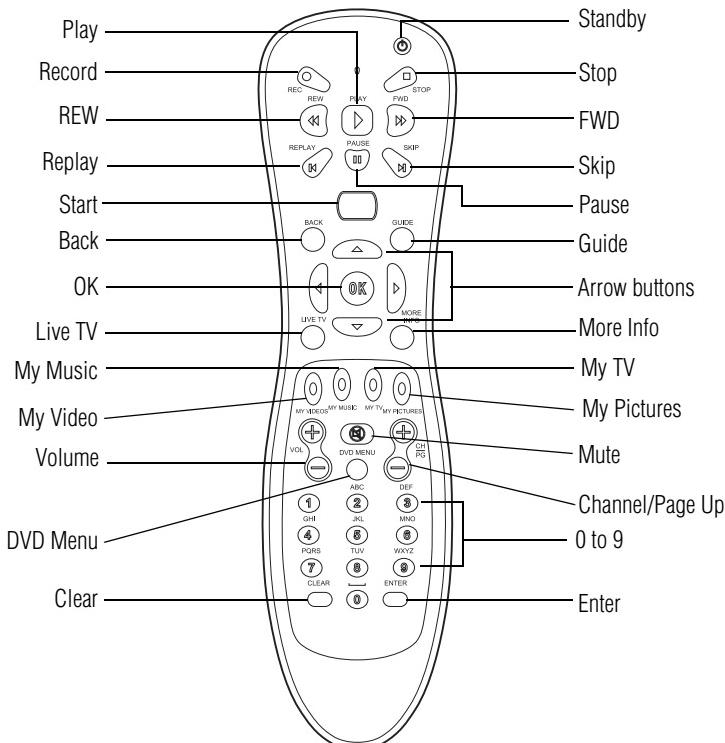
The remote control helps you navigate the Media Center windows on your computer just as a cable TV remote control navigates cable TV options or controls the playback of a movie in a VCR or DVD player.

Using the remote control, you can:

- ❖ Navigate and control all Media Center windows.
- ❖ Control the video or live TV display.
- ❖ Place the computer in and out of standby mode.

The remote control can send a strong signal to the remote sensor from within a range of about 26 feet and from an angle of about 45 degrees.

## Remote Control Buttons Overview



*The Remote Control*

The remote control has the following buttons/functions:

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**Standby** — Puts the computer into a power reduced standby state.

**Record** — Records the selected television program and stores it on your hard disk.

**Stop** — Stops the media currently playing.

**REW (Rewind)** — Moves the media (video, DVD, music, and so on) backwards.

**Play** — Plays the selected media.

**FWD (Fast forward)** — Moves media forward.

**Replay** — Moves media backward (seven seconds for videos and live TV, one music track or one DVD chapter at a time).

**Pause** — Pauses an audio or video track, and live or recorded TV programs.

**Skip** — Moves media forward (30 seconds for videos and live TV, one music track or one DVD chapter).

**Start** — Opens Media Center to the main window.

**Back** — Displays the previous window.

**Guide** — Opens the Television Program Guide to display available TV channels and programs to watch and record.

**Arrow buttons** — Moves the cursor to navigate within Media Center windows.

**OK** — Selects the desired action or window option. It acts like the Enter key. If watching TV in full screen mode, pressing OK switches back to the previous viewed channel. Press again to toggle back. It acts the same way as a Jump button on some TV remote controls.

**Live TV** — A shortcut to the full screen view. It also takes you to the current point in a live TV program after pausing live TV.

**More Info** — The button provides more details on a TV program that is listed in the Guide.

**My Videos** — Opens the My Videos window.

**My Music** — Opens the My Music window.

**My TV** — Opens the My TV window.

**My Pictures** — Opens the My Pictures window.

**Volume** — Increases (+) or decreases (-) sound.

**Mute** — Turns your computer sound off.

**Channel/Page up (+) and down (-)** — Changes the TV channel or moves a page up and down, depending on the available options.

**DVD Menu** — Opens the main menu on a DVD movie, if available.

**0 to 9** — Changes channels or enters text into a Media Center search or text box.

**Clear** — Deletes the current selection and acts like a backspace key on a keyboard.

**Enter** — Selects the desired action or window option.

## Remote Control Button Groups

Use your remote control to navigate all the Media Center windows. Your remote control includes four major groups of controls.

- ❖ **Standby and Direct Access** — The Standby button places the computer in and out of standby (reduced power) mode. The direct access buttons open specific windows within Media Center.
- ❖ **Media playback** — The media playback buttons control the playback of music, DVD movies, videos, recorded and live TV programs, and picture slide shows.
- ❖ **Navigation and other direct access** — The navigation buttons move the cursor around Media Center windows and select desired actions, much like a mouse does.

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The other direct access buttons open specific windows within the Media Center, such as the Television Program Guide, a DVD main menu, and live TV in full screen mode.

- ❖ **Audio and Video** — The audio and video buttons control sound and channel selection, display details, and allows you to enter text.

## Direct Access Buttons

The direct access buttons open the main Media Center windows.

- ❖ **TV** opens the My TV window where you can watch and record TV and access other My TV features.
- ❖ **Recorded TV** opens the Recorded TV window where all your recorded TV programs are stored. From this window, you can search for and play back a recorded show.
- ❖ **Music** opens the My Music window where you can play music CDs and your music files.
- ❖ **Pictures** opens the My Pictures window where you can search for, sort, and view pictures and slide shows that are stored in the My Pictures or the Shared Pictures folder in Windows Explorer.
- ❖ **Video** opens the My Videos window where you can search for, sort, and play back your recorded video files that are stored in the My Videos or the Shared Videos folder in Windows Explorer.

## Media Playback Buttons

These buttons allow you to play back picture slide shows, music files, playlists, music CDs, DVD movies, home videos, and live TV, from within the Media Center program.

Use **Pause** to pause selected media. Press Pause and then **FWD** repeatedly to play media frame by frame in slow

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motion. To continue slow motion, you must press the FWD button more than once.

Use **Play** to play selected media.

Use **FWD** to move selected video or picture media forward. Press FWD up to three times to increase the fast fowarding speed. Pressing the FWD button:

- ❖ Moves pictures forward to the next picture.
- ❖ Moves a video forward.
- ❖ Moves a TV program (that has been paused or stopped) forward to the current moment in live TV, and then begins playing.

Use **REW** to rewind selected video or picture media. Press REW again to increase the rewinding speed. Pressing the REW button:

- ❖ Moves the picture slide show backward to the previous picture.
- ❖ Moves the video backward.
- ❖ Moves live TV program to the beginning of the 30-minute pause buffer.

Use **Record** to record TV programs. The Record button works only when My TV is used to play a TV show. It is inactive when other media is playing.

- ❖ While watching live TV or in the Guide, you can press the Record button once to record a TV show.
- ❖ In the Guide, you can press it twice to record a TV series.
- ❖ In the Guide, press it three times to cancel recording.

Use **Stop** to stop selected media from playing. When this is pressed while you are watching TV, the Media Center pause buffer continues to record in the background.

Use **Skip** to move forward in the selected audio or video file.

- ❖ For music, Skip moves to the next track.

- ❖ For DVDs, Skip moves to the next chapter.
- ❖ For videos and live TV and videos, Skip moves ahead 30 seconds.

Use **Replay** to move backward second seconds in the selected audio or video file.

- ❖ For music, Replay moves to the previous track.
- ❖ For DVDs, Replay moves to the previous chapter.
- ❖ For videos and live TV and videos, Replay moves back 7 seconds.

## Using the Media Center Remote Control

To begin using your remote control:

- 1 Point the remote control at the remote sensor. The remote sensor should be located near your monitor or in a convenient place. Make sure there is nothing blocking the path between your remote control and the remote sensor.
- 2 Press the Start button to start the Media Center and to open the Media Center main window.

Use the arrow keys on the remote control to select an item, and then press OK to select an option and begin using the Media Center.

## Watching Television Programs

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**NOTE**

Before you can watch TV using Media Center, make sure your computer is set up correctly for your TV signal source and that you have completed the Media Center setup wizard.

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In **My TV** you can:

- ❖ Watch your favorite television programs in full screen mode or in an inset window.

- ❖ Pause, stop, rewind, and fast forward live TV, similar to the way you would control a DVD from a DVD player.
- ❖ Record a single TV show or an entire series. My TV will manage the recordings for you and give advanced warning if there are any recording conflicts.
- ❖ Create a recorded TV library.
- ❖ Search for TV shows to watch or record using the Television Program Guide.
- ❖ Quickly check which TV shows you have scheduled to record.
- ❖ Search for TV shows by title, keyword, or category.



*Sample MY TV screen*

To watch a television program:

- 1 Press the TV button on the remote control.

The last channel selected or the first channel available begins playing next to the My TV menu.

- 2 Select a channel by using the Channel/Page (+ or -) buttons or by using the numeric buttons on the remote control.

The channel number displays in the window.

- 3 Using the arrow buttons, select the TV viewing window, and then press OK to maximize the TV window to full screen mode. You can also press the Live TV button to watch TV in full screen mode.
- 4 Press Back on the remote control to exit full screen mode and return to the previous window.

## Selecting a Program from the TV Guide

In the TV Guide, you can scroll through a list of the current television programs and channels available from your television service provider. The TV Guide displays the channel and network, as well as the show title and scheduled time block. The number of days displayed depends on your television service provider. By selecting a program title, a detailed description of the program appears at the bottom of the window.

- ❖ You can have Media Center automatically connect to the Internet and update your Guide.

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**NOTE**

Not all Internet Service Providers support this feature.

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- ❖ You can manually update the TV Guide in the Media Center Settings window at any time, even if you have automatic updates set up.
- ❖ If the TV Guide has not been downloaded from the Internet because there is no Internet connection, the message ‘No data available’ displays next to each channel.
- ❖ The number of channels and calendar days of TV listings depends on your television service provider.

- ❖ The TV Guide does not display past TV listings.



*Sample TV Guide screen*

- ❖ Use the arrows at the top of the screen to display programs for later or earlier in the day.
- ❖ Use the arrows at the bottom of the screen to display additional channels available for viewing.
- ❖ Use the remote control CH/PG keys to scroll the listing
- ❖ To view a program, double-click it, or select it with the remote control and click OK. If the desired program is currently playing, the inset window will maximize and the program will play.

## Watching a Recorded TV Program

Recorded TV is the storage place for all your recorded programs. In the Recorded TV window, you can sort your shows by name, date, or status. You can also delete a recorded program or series of programs and check for any recording errors.

- ❖ To watch a previously recorded TV program, on the My TV screen, click Recorded TV. On the remote control, click Start, and then My TV, and then Select Recorded TV.
- ❖ All of your recorded TV programs display on the Recorded TV screen. You can sort your programs by Date, Category, or Name by clicking the desired sort option.
- ❖ Select Scheduled to view a list of all programs scheduled to be recorded. You can also resolve any recording conflicts in this window. Use the arrow buttons to move through the list, select a program, and then press OK on the remote control. Select the option to change, and then press OK again.
- ❖ Using the arrow buttons, select the recorded program you want to watch, and then press the OK button on the remote control to begin watching the program.

## Searching for a TV Program

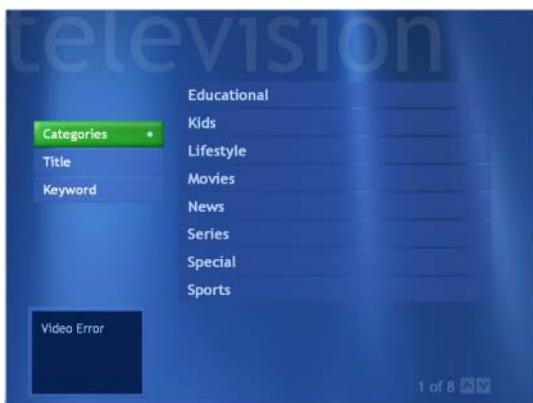
You can search the TV Guide to find a TV program by entering a title, keyword, or by selecting a category using your remote control.

To search for a TV show:

- 1 Press the Start button on the remote control, select My TV, and then select Search.
- 2 Do one of the following:
  - ❖ Select Title. Use the numeric buttons on your remote control to enter a program title word, and then press OK on the remote control.
  - ❖ Select Keyword. Use the numeric buttons on your remote control to enter a descriptive word that would appear in a program title or program description, and then press OK on the remote control.

- 3 Use the arrow buttons to scroll through the search results, select a show, and then press OK. If multiple times for the show are displayed, select a time and press OK.
- 4 Select Play in the window, and then press OK on the remote control to begin watching the program in full screen mode.

If the show is not currently playing, select Record show or Record Series, and then press OK.



*Sample Searching for a TV program screen*

## Recording TV

The Media Center allows you to record TV programs for later viewing. You can record the show you are watching, or you can record another or future show or series from the Guide, the Search, or the Settings window in My TV.

To record a TV show you are currently watching, just press the Record button on the remote control once. The Record icon appears in the Guide next to the program being recorded or the program to be recorded.

If a show is currently being recorded, the Record icon also appears in the taskbar on the desktop. If you move your mouse over the icon, the Media Center displays which show

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is currently being recorded. You can right-click the icon to open Media Center and stop recording.

Media Center automatically records until the show is scheduled to be over as listed in the TV Guide. To make sure your show is being recorded, you can select TV Guide. The Record icon should appear next to the show in the TV Guide while you are recording. The Record icon disappears when the recording is complete.

If there is a recording conflict or error, the Record Conflict icon appears next to the show in the TV Guide. This means the show will not be recorded unless the conflict is resolved.

## Recording TV tips

- ❖ If you are watching live TV during a scheduled recording time, you can watch only the show being recorded. If you change channels, the recording stops.
- ❖ If you go to another area in the Media Center, the TV channel you last selected will be displayed in the inset window at the bottom of the window.
- ❖ When scheduling a recording in the TV Guide, you can press the Record button once to record a show, twice to record a series, or three times to cancel a scheduled recording you just selected.
- ❖ When you press the Record button to record a show you are watching, the recording automatically stops at the end of the show's regularly scheduled end time.
- ❖ Some channels can be shared by two or more networks, depending on the time of day. The Guide may display only one network's programming. This may cause recording options to be unavailable. You may need to

manually update the Guide before scheduling a recording.

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**NOTE**

If you turn off (shut down) your computer, the Media Center will not record a scheduled program. Your computer must be turned on or in standby mode to record a TV program. The computer will not automatically go into standby mode if the Media Center is open.

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## Recording from the Guide

To record a current or future show or series from the Guide:

- 1** Press the Start button on the remote control, select My TV, and then select Guide.
- 2** Use the arrow buttons on the remote control to find the show you want to record, select the show, and then press OK.

You can also press the numeric buttons on the remote control to go directly to a channel. Press the right arrow button in the Guide to select a show that will be broadcast in the future.

- 3** Select Record in the window and press OK on the remote control to record the show. The Record icon appears next to the show in Guide.

You can also select Record Series and press OK on the remote control to record the entire series.

The Record Series icon is displayed to indicate a series.

- 4** Press Back on the remote control to return to the previous window.

If there is a recording conflict, Media Center displays a message and allows you to select which show you want to record.

---

## Recording from Search

To record a current or future show or series using Search:

- 1 Press the Start button on the remote control, select My TV, and then select Search.
- 2 Select Title, Keyword, or Categories. For Title and Keyword searches, enter your descriptive search words. The Media Center starts searching from the first letter you type into the text box. For a Categories search, select the category you want and press OK.
- 3 Use the arrow buttons to scroll through the search results to select the show you want to record, select the show, and then press OK.
- 4 Select Record or Record Series in the window, and then press OK. The recording icon for a single program or the recording icon for a series appears next to the show in the Guide.
- 5 Press Back on the remote control to return to the previous window.

If there is a recording conflict, the Media Center displays a message and allows you to select which show you want to record.

## Recording Manually

Recording a program manually allows you to select a specific date, channel, and recording time period. For some programs, you may want to begin recording before the scheduled beginning and after the scheduled ending of the program.

To manually record a show or series:

- 1 Press the Start button on the remote control, and then select My TV.
- 2 Select Recorded TV.
- 3 Select Add Recording.

- 
- 4 Enter the channel number using the numeric buttons on the remote control.
  - 5 Under **Create a custom recording with**, select **Channel and time**. Use the arrow buttons on the remote and +/- buttons on the screen to bring the selections into focus.
  - 6 Select **Add title** if you would like to name the manual recording. Enter letters by using the numeric keypad on the remote to name the recording, and then select **Save**.
  - 7 Select **Record** to schedule the manual TV recording and return to the Recorded TV menu.

## Changing Your Settings

The Media Center Settings option allows you to:

- ❖ Change settings for your television service provider.
- ❖ Change settings for your Internet Service Provider.
- ❖ Manually update the My TV Television Program Guide.
- ❖ Check your remote control.
- ❖ Change your ZIP Code to receive the correct Television Program Guide for your area.

To change settings, on the My TV screen, click Settings.



*Sample TV Settings screen*

This window allows you to change several settings that control how Media Center plays and records TV programs, as well as how it plays DVDs. In particular, you can change settings for:

- ❖ Recording a TV program, including manually recording
- ❖ The TV Guide
- ❖ The TV Signal
- ❖ Adjust display settings
- ❖ Audio settings

To make a change, click on the desired setting.

## Changing recording priorities

If Media Center encounters a recording conflict between two series, then Media Center uses the series priorities list to decide which show to record. You can place the series you most want recorded high on the series priorities list to help ensure it is successfully recorded in the case of conflicts.

When you schedule a new series it is added to the bottom of the list and has the lowest priority.

- 
- 1 Press the START button on the remote, and then select **My TV**.
  - 2 Select **Recorded TV**.
  - 3 Select **Scheduled**.
  - 4 Select **Series**.
  - 5 Select **Change priorities**.
  - 6 Use the up or down arrow on the screen to move a scheduled series up or down in the list of series priorities.
  - 7 Select **Done** to save changes and return to the Schedule Series page.

## Listening to Music

The My Music window in the Media Center works with Windows Media Player to find and play your music files and CDs. You can use Windows Media Player to create your music library and then use Media Center to find and play your music using your remote control.

You can store your music files in the My Music folder or in other folders on your hard drive, however, you need to add those files to the Windows Media Player Library for Media Center to be able to find and play them.

In **My Music**, you can:

- ❖ Play music CDs. You can skip, shuffle, or repeat songs or albums.
- ❖ Play digital music files from a music library you create and organize using Windows Media Player.
- ❖ Search for music files by the following categories: album, artist, playlist, song, or genre.
- ❖ View music CD details such as artist name, song title, length of song, and album cover art.
- ❖ Play a music playlist with a slide show.



*Sample My Music screen*

## Creating Your Music Library Using Windows Media Player

Each time you add music files outside of Windows Media Player, you must use the Tools menu to add music files to your Windows Media Player Library for Media Center to find them.

To add music files:

- 1** Click Start on the taskbar, and then click Windows Media Player.
- 2** Click the Media Library tab on the side of the window. The first time you select Media Library, a message tells you that Windows Media Player needs to search your computer for your music files.
- 3** Click Yes. Windows Media Player searches for all available audio media and places them in the Media Library.
- 4** To add files from a CD to your Media Library, insert the CD, select Copy from CD, and then select Copy Music in the toolbar. You can select to copy your music files as MP3 files or as Windows Media Audio files (.wma).

- 
- 5** Click the Media Library tab to see where your new audio files have been placed. You can rename files by selecting the file and typing a new name or genre over the old one. The way you label your music files determines the category in which they are placed.

Your added music files can now be found and played back using My Music in Media Center. You may need to close and open Media Center for the added music files to appear in My Music.

For more information about adding music files to the Media Library, use the Windows Media Player Help menu.

## **Deleting Music Files**

To delete a file from the Windows Media Player Library, select the music file, right-click the mouse, and then select Delete from Library.

## **Adding Music from Your Hard Drive to Windows Media Player Library**

You can place all your music files into the My Music folder or into other folders on your hard drive, however, you need to add those files to the Windows Media Player Library for Media Center to be able to find and play them.

You may have already copied and organized your music files on your hard drive. If so, you need to add them to the Windows Media Player Library to access them with the Media Center.

To add music files that are stored in your My Music or Shared Music folder on your hard drive:

- 1** Click Start on the taskbar, and then click Windows Media Player.
- 2** Move the mouse to view the Windows Media Player toolbar and then click Tools.
- 3** Select Search for Media Files.

- 4 Select Search to search all drives, or select Browse to search through a specific drive.
- 5 Select the desired drive and then click OK. Windows Media Player searches the selected drives for all supported audio files and adds them to the Media Library.

If Windows Media Player does not recognize all of your audio files, try copying the files directly into Windows Media Player. Refer to Windows Media Player Help for more information.

Your music files can now be found and played in My Music window in the Media Center. You may need to close and open Media Center for the added music files to appear in My Music.

## Playing Digital Music Files

When you first open the Media Center and open the My Music window, you may not find any music files listed unless there is a music CD in your CD drive or unless you have already added audio files to your Windows Media Player Library.

If you don't have any music files listed, you need to add music files to the Windows Media Player Library, and then restart Media Center to play your music files in Media Center.

When you copy music files using Windows Media Player and your computer is connected to the Internet, the CD information is copied and displayed in Media Center and in the Windows Media Player Library.

To play a music CD using Media Center:

- 1 If you insert a CD when Media Center is not open, a message appears asking what you want to do. You can select Windows Media Player as your default audio player. If you have another program set as the default audio player, Windows opens this program and begins playing the CD.

- 
- 2** Press the Start button on the remote control.
  - 3** Insert a CD into the CD drive — the CD plays automatically in Media Center. If you have other media such as live TV already playing when you insert the CD, Media Center asks you if you want to play the CD. Select Yes to begin playing the CD.
- 

**NOTE**

Media Center cannot be used to record music files. Use Windows Media Player to record music files.

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## Finding Music Files in My Music

After you have added and organized files in Windows Media Player Library, you can browse through your music files in the My Music window. You can search for music files by album title, artist, song title, or music genre. You can also use the search feature to quickly find a specific song, album, or artist.

To find a music file:

- 1** In the My Music window, select Albums, Artists, Playlists, View Songs, or Genres to display a list of all items in that category. In these windows, you will have other options, depending on the category you select.

or

Select Search. Use the numeric buttons on the remote control to enter a descriptive word, song title, or artist name and display a list of all the titles that match your entry.

- 
- 2** Use the arrow keys to select a music file, and then press the Play button on the remote control to begin playing that music file.
- 

**NOTE**

If you back up music files from a CD using Windows Media Player 9, you must log the files into the media player's play list before you can play them using the Media Center. To log the files into the play list, open Windows Media Player 9, press F3 and log the files in the dialog box.

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## Playing a Song

You can play a song from anywhere in My Music. You can select it from the View Song list, or from the Album, Artist, and Genre lists.

You can also play a single song from a playlist as follows:

- 1** In the My Music window, select View Songs. The list displays all the songs in your media library.
- 2** Use the arrow buttons to select a song, and then press OK or Play on the remote control to play it.
- 3** Use the controls at the bottom of the screen to Stop or Pause the song, advance to another song, or increase or decrease the volume.

## Setting Up an Automatic Disc Jockey

You can select to have Media Center randomly play all the available songs in one genre:

- 1** In the My Music window, select Genres.

The list displays all the genres available in your Media Library.

- 2** Use the arrow buttons to select a genre, and then press OK on the remote control.

- 
- 3** Use the arrow buttons to select Shuffle, and then press OK on the remote control.

All songs in that genre are randomly played.

## Finding and Playing an Album

- 1** In the Media Center Start menu, select My Music, and then select Albums.
- 2** In the Albums window, select View by list or View by cover to organize all of the albums available.
- 3** Use the arrow buttons to select an album, and then press OK on the remote control.

You can also select:

- ❖ Shuffle to rearrange the music tracks on the album.
- ❖ Play to play the album selected. The Now Playing window opens, and the album starts playing.

- 4** In the Play window, select a song and press OK on the remote control. You can also select:
- ❖ View Song to view cover art and play one track.
  - ❖ View Tracks to view a list of all tracks on the album.
  - ❖ Shuffle to rearrange the play order.
  - ❖ Repeat to play the album again.
  - ❖ Buy Music to connect to the Internet, find CD information, and buy music CDs. To go back to Media Center, press Start on the remote control.
- 5** Press Back on the remote control to return to the previous window.

## Creating a Playlist

A playlist is a customized list of digital music files. Using playlists, you can group various digital music files together and determine the order in which you want the files to play. You can create a playlist that includes several tracks from various CDs or even a playlist that contains background music for a slide show.

Use Windows Media Player to create playlists and then play them back using Media Center.

To create a playlist:

- 1** Click Start on the taskbar and select Windows Media Player.
- 2** Select Media Library.
- 3** Click New playlist in the toolbar, type in a name for your playlist, and then click OK. Your new playlist should appear under the My Playlists area of the Media Player window.
- 4** In the Media Library, select the music file that you want to add to your playlist.
- 5** Click Add to playlist in the toolbar, and then select your playlist from the drop-down menu. Repeat this step until all of your files are added.
- 6** Select your playlist to check your added music files.
- 7** Close Media Center, if open, and then press the Start button on the remote control. Your playlist won't appear in My Music unless you close and open Media Center.

You can now play your playlist in Media Center.

## Displaying Your Pictures

In **My Pictures**, you can:

- ❖ View pictures individually or as a slide show.
- ❖ Change transition time and display order of the pictures in your slide show.
- ❖ Sort pictures by name or date.
- ❖ View and scroll through pictures that are in the My Pictures folder by using your remote control or your keyboard and mouse.



*Sample My Pictures screen*

After you organize your pictures in the My Pictures folder in Windows Explorer, open Media Center to view your pictures:

- 1 Press the Start button on the remote control to open the Media Center Start menu.
- 2 Select My Pictures. The right side of the window shows a small picture image (thumbnail) and, if you've organized your pictures into folders, folder icons.

---

Your pictures are displayed just as you organized them in the My Pictures folder in Windows Explorer.

- 3 Use the arrow buttons on the remote control to move through your picture files and folder files and select a picture.
- 4 Press OK to select a picture or folder to view. The selected picture opens in full screen mode.

## Viewing a Slide Show

To view pictures as a slide show

- 1 Press the Start button on the remote control to open the Media Center Start menu.
- 2 Select My Pictures.
- 3 Use the arrow buttons on the remote control to select the folder of pictures you want to view as a slide show, and then press OK.
- 4 Use the left and right arrow buttons on the remote control to go to the next or the previous picture manually or use the arrow buttons to select Play slide show, and then press OK to display your pictures automatically.

If you do not select the pictures you want to view as a slide show, Media Center uses the first folder listed. If you have picture files that are not stored in folders you created, Media Center plays all files stored in the My Pictures folder.

## Sorting your Pictures

To organize your pictures by date or by name:

- 1 Select My Pictures on the Media Center Start menu.
- 2 Select Sort by date or select Sort by name.

## Watching Your Digital Movies

The My Videos window in the Media Center makes it easy to play home video files you created or video files you downloaded from the Internet.

In **My Videos** you can:

- ❖ Browse through and play back all of your digital video files using the remote control or the keyboard and mouse.
- ❖ Sort videos by name or date.
- ❖ View your videos in full screen mode or from an inset window in Media Center.



*Sample My Videos screen*

## Organizing Your Videos

When you attach a digital video camera to your PC, Windows asks you how you want to capture your video. You can choose from various software programs to capture and then edit your video file.

Most programs automatically save your file to the My Videos folder in Windows Explorer.

If not, move your videos into the My Videos or Shared Videos folder in Windows Explorer for Media Center to be able to find and play them.

Once you have placed all your videos into the My Videos or Shared Videos folder, you can rename, add, delete, and organize them into folders.

To organize and store your videos, click Start on the taskbar, click My Documents, and then double-click the My Videos folder.

If you want to share your videos with others, place them in the Shared Video folder. To do this, click Start on the taskbar, click My Documents, click the Shared Documents folder under Other Places, and then double-click the Shared Video folder.

You can add, delete, edit, rename, and organize your video files into folders you create in the Shared Video folder.

Your videos can now be played in Media Center.

## Playing Digital Videos

After you organize your videos in the My Videos or Shared Videos folder in Windows Explorer, open Media Center to watch your videos.

- 1 Press the Start button on the remote control to open the Media Center Start menu.
- 2 Select My Videos. The right side of the window shows small images of your video files and folder icons, if you've organized your videos into folders.
- 3 Use the arrow buttons on the remote control to move through and select your video or video folder.
- 4 Press the OK button on the remote control.

The selected video plays in full screen mode, or the folder opens displaying a list of video files. Use the mouse to resize the window if you want to watch your video while doing something else on your desktop.

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- 5 When the video is finished, select Restart and then press OK to replay the video, or select Done and press OK to close the file and return to the My Videos window.

## Playing a Video in Full Screen Mode

- 1 On the Media Center Start menu, select My Videos.
- 2 On the My Videos menu, select My Videos or Shared Video.
- 3 Use the arrow buttons to select the folder you want, and then press OK. Select the video file and press OK again. Your video plays in full screen mode.
- 4 Press Back on the remote control to exit full screen mode and return to the previous window.

## Sorting Videos

To organize your videos by date or by name:

- 1 On the Media Center Start menu, select My Videos or Shared Video.
- 2 If your videos are organized within other folders, use the arrow buttons to select the folder you want to sort, and then press OK. If you don't select a folder, the Media Center sorts all the files and folders.
- 3 Select Sort by date or Sort by name.

## Watching a DVD

Watching DVDs in the Media Center allows you to control the playback with your remote control. If you select to play your DVD in another program, the use of some of the remote control buttons is not supported.

To play a DVD movie in Media Center

- 1 Insert the DVD into the drive. If you have other media playing, Media Center asks if you want to play the DVD.

Select Yes or No. If you don't select an option, the DVD autoplays in full screen mode after a few seconds.

- 2 Press the Start button on the remote control.
- 3 If a DVD menu appears, use the remote control or the mouse to select the DVD menu items and control the DVD movie playback.
- 4 Press Stop on the remote control to stop playing the DVD.
- 5 To change the window size, move the mouse and click the Resize button on the taskbar of the DVD window.



*Sample Play DVD screen*

## Stopping a DVD Movie

- 1 Press the Stop button on the remote control to stop the movie.
- 2 Use the arrow buttons on the remote control to select an item on the Stopped menu, and then press OK.
  - ❖ Select Resume to begin playing the DVD where you left off.

- 
- ❖ Select Restart to begin playing the DVD at the beginning.
  - ❖ Select Title Menu to go to the DVD main menu, if available.
  - ❖ Select DVD Languages to change the language for the DVD soundtrack, subtitles, and menu.
  - ❖ Select Eject to open the disc tray.

## Playing a DVD movie already in your drive

If you already have a DVD movie in your drive, but you have been doing other things in Media Center or in other programs from your desktop, you can play the DVD by:

- 1 Press the Start button on the remote control.
- 2 Select Play DVD. The DVD movie begins playing in full screen mode.

## Changing the Media Center Settings

In the Media Center Settings window, you can change settings for watching television, for viewing your pictures and slide shows, and for controlling sound and the display of all the Media Center windows.



*Sample Media Center Settings screen*

## **Administrator Controlled Settings**

Some settings apply to all Media Center windows for all users and must be set up by the administrator. These settings are:

- ❖ Parental Control sets up rating permissions for TV viewing. This setting requires the administrator to use a separate password. This option may not be available with your model.
- ❖ Set up Internet connection sets up Internet connection.
- ❖ Guide sets up channel mapping for the Television Program Guide, which enables your computer to download the correct guide from the Internet.
- ❖ Setup TV signal sets up your TV or cable connection.

## User Controlled Settings

Some settings can be selected by each person using the PC. These settings are:

- ❖ Sounds, Appearance, and Audio sets sound and display settings.
- ❖ DVD sets language and audio settings for playing DVD movies.
- ❖ Pictures determines slide transition time and selects which pictures to display in a slide show.

## Changing General Settings

General settings affect each user's experience in Media Center and can be changed only by the administrator of the computer.

- 1 In the Media Center Start menu, select Settings. You may need to select the scroll arrows in the Start menu to view Settings.
- 2 In the Settings window, select General.
- 3 In the General window, do one of the following:
  - ❖ Select Appearance to turn transition animations or notifications on or off. Use the arrow buttons to select the item to change, and then press OK on the remote control. Select OK in the window, and then press OK again.
  - ❖ Select Media Center Sounds to turn the sound on or off. Use the arrow buttons to select an option, and then press OK on the remote control. Select OK in the window, and then press OK again.
  - ❖ Select Notifications to turn on or off taskbar notifications. When on you receive a notification when you are low on disk space, when there is no TV signal, or when there is no Guide data.
  - ❖ Select Autoplay to set autoplay options.

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- ❖ Select Parental Control to set passwords, movie ratings, and other controls.
  - ❖ Select Set up Internet connection to open the Internet Connection wizard. This allows you to set up your connection. Follow the on-screen instructions.
  - ❖ Select Set up Remote Control to make sure your remote control is working with the remote sensor. Follow the on-screen instructions.
  - ❖ Select Privacy to change settings for how the computer retrieves and stores media information.
  - ❖ Select Data Credits to find information about your version of Media Center.
- 4** Press the Back button on the remote control to return to the main Settings window.

## Changing TV Recorder Settings

The TV Recorder settings allow you to control your recording priorities and options in Media Center.

- 1** In the Media Center Start menu, select Settings.
- 2** Select TV.
- 3** Select Recorder.
  - ❖ Select History to check a list of scheduled recordings, delete scheduled recordings, resolve recording conflicts, and to change recording priorities for the programs you scheduled to record.
  - ❖ Select Recording storage to check the amount of recording space on your hard disk. Also, you can change the settings that affect the recording storage space.
  - ❖ Select Recording defaults to change the general recording default settings that affect how and when your programs are recorded.

- 
- 4 To change the TV/DVD settings, use the arrow buttons to select an option, and then press OK on the remote control. Select OK in the window and then press OK on the remote control again to enter the changes.
  - 5 Press the Back button on the remote control to return to the main Settings menu.

## About Recorded TV Storage Space Settings

The space available for recording TV programs depends on your hard disk allocation, drive size, and default recording quality selections. Your PC requires a certain amount of space to run your Windows XP operating system, run software programs, and store data files. If your hard disk becomes full, it may affect the PC speed and performance. You may need to free up storage space to record more programs or to optimize the PC's performance.

To increase disk space, you can:

- ❖ Delete recorded shows from the Recorded TV window. For more information, refer to the My TV chapter.
- ❖ Increase the percentage of hard disk space available for recorded TV shows in Default Settings. Select between 5 and 90 percent. The default is set at 75 percent.
- ❖ Record TV programs to the largest drive. Media Center does not support removable drives, network drives, or drives with less than 5 MB of disk space.
- ❖ Archive TV programs to a DVD+RW or DVD+R if your PC has a DVD writer drive. You can play archived programs recorded on DVDs only from the PC that you recorded the TV program from.
- ❖ In the Recorder Defaults window, select Fair as the default recording quality. The better the quality of the recording, the more space the file takes.
- ❖ In the Recorder Defaults window, select Until I watch as the Keep setting for each recorded show.

## Change TV Guide Settings

In the Guide Settings, you can select which channels to display and you can manually update your Guide from the Internet.

TV Guide settings are the same for each user and can be changed only by the administrator of the computer.

To change the TV Guide settings:

- 1** In the Media Center Start menu, select Settings. You may need to select the scroll arrows on the Start menu to view Settings.
- 2** In the Settings window, select TV.
- 3** In the TV settings menu, select Guide.
  - ❖ Select Customize to show or hide channels that appear in the Guide. To show a channel, place a check mark next to the channel. To hide a channel, clear the check mark by selecting it.
  - ❖ Select Change lineup to change the network and Guide information for channels to display correctly.
  - ❖ Select Get Guide data to manually update the Television Program Guide from the Internet. Media Center connects to the Internet. This may take a few minutes to update.
  - ❖ Select About Guide data to find out general Guide information and the date range of your current Television Program Guide.
- 4** Use the arrow buttons to select an option, and then press OK on the remote control.
- 5** Press the Back button on the remote control to return to the TV Settings window.

## Changing Parental Controls for TV Viewing

Only the administrator of the computer can change the Parental Control setting. This feature may not be available on your PC.

- 1 In the Media Center Start menu, select Settings. You may need to select the scroll arrows on the Start menu to view Settings.
- 2 In the Settings window, select General.
- 3 In the General menu, select Parental control. The first time you select Parental control, Media Center asks you to create a password. Use the numeric keys on the remote control to enter your password.
- 4 Select DVD Ratings.
- 5 Use the arrow buttons to select Turn on movie blocking, and then press OK.
- 6 Use the arrow buttons to select Block unrated movies, and then press OK.
- 7 Use the arrow buttons to select the + or - area. Press the OK button on the remote control to scroll through the movie rating levels. When you find the one you want, use the arrow buttons to select OK in the window, and then press OK on the remote control to enter settings and return to the DVD settings window.
- 8 Press the Back button on the remote control to return to the main Settings window.

## Changing DVD Movie Language

To select DVD language settings for subtitles, closed captioning, and viewing the DVD:

- 1 In the Media Center Start menu, select Settings.
- 2 In the Settings window, select DVD.

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- 3 In the DVD Settings window, select DVD, and then select Language.
  - 4 Use the arrow buttons to select the + or - buttons. Press the OK button on the remote control to scroll through the languages available. When you find the one you want, use the arrow buttons to select OK in the window, and then press OK on the remote control.
  - 5 Press the Back button on the remote control to return to the main Settings window.

## Selecting Closed Captioning

The audio settings window allows you to select closed captioning. Closed captioning displays the TV's spoken audio in text format for those who are unable to hear the audio.

To select closed captioning:

- 1 In the Media Center Start menu, select My TV.
- 2 Select Settings.
- 3 Select Audio.
- 4 Use the arrow buttons to select the + or - buttons. Press OK on the remote control to scroll through the choices available.
  - ❖ **Audio:** If you select Secondary Audio Program (SAP) instead of stereo, Media Center allows a simultaneous broadcast of a primary and secondary audio program. It could contain an additional voice track such as a voice-over commentary or a foreign language interpretation.
  - ❖ **Caption Display:** You can select to turn Closed Captioning on, off, or on when mute.
- 5 Use the arrow buttons to select OK in the window, and then press OK on the remote control.

- 
- 6 After you make your changes, press the Back button to return to the main Settings menu.

## Changing Picture Settings

Each user can set his or her own picture settings.

- 1 In the Media Center Start menu, select Settings. You may need to select the scroll arrows on the Start menu to view Settings.
- 2 In the Settings window, select Pictures.
- 3 Use the arrow buttons on the remote control to select an option.
  - ❖ Select the + or - button and then press the OK button on the remote control to increase or decrease the transition time. Select OK in the Settings window and then press OK on the remote control to enter the setting and go back to the Settings window.
  - ❖ Select the check icon and then press the OK button on the remote control to show pictures within folders or in random order. Select OK in the Settings window and then press OK on the remote control to enter the setting and go back to the Settings window.

# Chapter 7

## Exploring Your Options

In this chapter, you will explore other features of your notebook computer.

### Windows® XP special features

The Windows® XP operating system offers you several new features and enhancements, including:

- ❖ New system file protection
- ❖ A system restore function, allowing you to rollback the system to its previous mode
- ❖ An improved help center, support automation, and automatic Windows® operating system update
- ❖ Wizards to simplify setting up your home network
- ❖ Ability to share one Internet connection among multiple PCs
- ❖ An automatic discovery feature that allows your computer to detect new and intelligent devices

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## Personalizing your desktop

Your desktop is your virtual workspace. This section explains how to customize its features for the way you like to work. You can customize the following aspects of the desktop:

- ❖ Taskbar—which resources to display for quick access
- ❖ Active Desktop® interface—what information from the Internet to always display
- ❖ Desktop style—how windows are displayed and how to browse folders and files
- ❖ Toolbars—what information appears at the top of each window

### Customizing the taskbar

As you work, the taskbar changes to reflect what you are doing. Its icons provide shortcuts to programs, documents, files, folders, system features, and components. Open applications also have Forward and Backward buttons to allow navigation through folders, documents, and Web sites.

For example, you can personalize the taskbar to include Quick Launch icons, and also your favorite URL addresses or local folders and programs.



**DEFINITION:** URL stands for Uniform Resource Locator, which is the address that defines the route to a file on the Web or any other Internet facility. Generically, it is known as the World Wide Web site address.

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Having a list of favorite URLs handy saves time. Using it bypasses the need for you to launch your browser first.

To customize your taskbar settings, point to an empty space in the taskbar and click the secondary button, then click **Properties**.

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## Bringing the world to your desktop

With the Windows® XP operating system, you can set up your desktop with complete World Wide Web integration at a single click.

### Turning on the Web content interface

The first step to bring active content to your desktop is to turn on the Web content interface:

- 1 Point to an empty space on the desktop and click the secondary button.
- 2 Click **Properties**.  
The Display Properties window appears.
- 3 Click the **Desktop** tab.
- 4 Click the **Customize Desktop** button.
- 5 Click the **Web** tab.
- 6 Follow the instructions to set up your desktop.

### Adding components to the Web content interface

- 1 Point to an empty space on the desktop and click the secondary button.
- 2 Click on **Properties**.  
The Display Properties window appears.
- 3 Click the **Desktop** tab.
- 4 Click the **Customize Desktop** button.
- 5 Click the **Web** tab.  
The operating system displays a list of items to add to the desktop.
- 6 To view additional components, click **New**.  
The New Desktop Item dialog box appears.

- 7 To browse the Gallery for more components to add, click **Visit Gallery**.

In order to browse, an active Internet connection must be established.

- 8 To select some other Web site, type the address of the Web site you want or click **Browse** to locate it.

You can configure the Web content interface in several other ways. For further information, see your operating system documentation or access Windows® Help by clicking **Start**, **Help and Support**.

## Changing desktop and browsing style

The operating system enables you to customize the way you view your desktop and browse the files and folders on your local computer or network file server.

You can make it so that:

- ❖ Items that normally require a double-click will open with a single click.
- ❖ Folders will open in their own window instead of in the same window.
- ❖ Folders are accompanied by a list of common tasks instead of displayed alone.

The options you choose determines how you browse in the operating system, regardless of whether you start from the desktop, My Computer, Windows Explorer, or Internet Explorer.

For more information about changing your desktop style, enter **desktop** in the Help and Support Index.

## Choosing a style

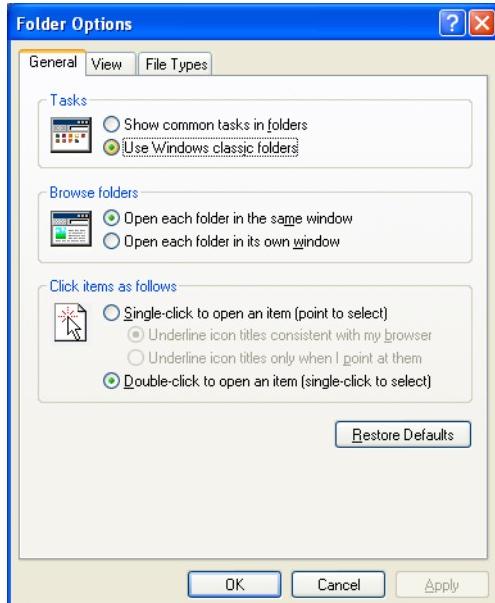
To select desktop and browsing style options:

- 1 Click **Start**, then click **My Computer**.

The My Computer window appears.

- 2** Select the **Tools** menu, then click **Folder Options**.

The Folder Options dialog box appears.



*Sample Folder Options dialog box*

- 3** Click the preferred options.
- 4** Click **Apply**, then **OK**.

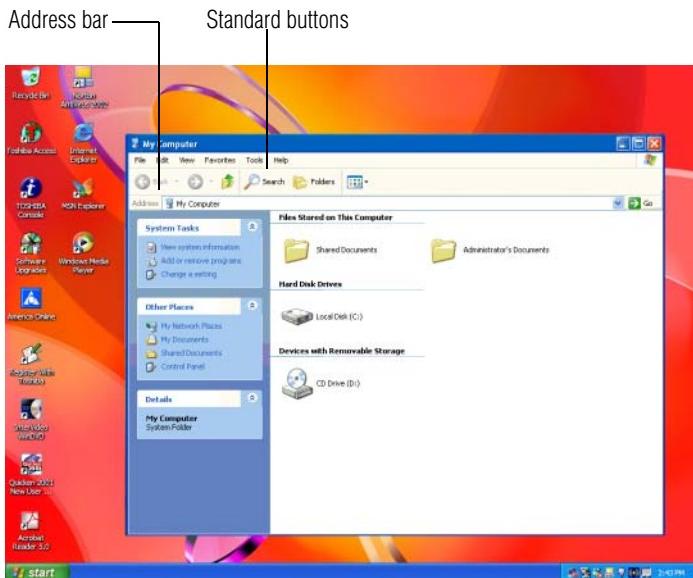
## Personalizing individual windows

Just as you can display a Web page on your desktop, you can also display a Web page in an individual window. If you subscribe to the Web page, it can be automatically updated on a regular basis. For example, using this Web integration feature you can monitor weather, game scores, stock prices, or headlines—all in the window of your choice.

### Customizing window toolbars

You can display one or more customizable toolbars at the top of a window. As you browse, the operating system detects the kind of information presented in the window and automatically displays the appropriate toolbar buttons and menus.

You can also add these toolbars to the taskbar.



Sample toolbar locations

---

The elements you can add to the top of the window are:

<i>Toolbar element</i>	<i>Description</i>
Address Bar	Opens Web pages, programs, folders, or documents. By default, the address bar shows your current location, and whether it is a folder or a Web page. You can browse to another location by typing an address — a URL, a path, or even a program name.  If you start typing a previously typed address, the AutoComplete feature finishes the address for you.
Standard buttons	Displays buttons for commonly used commands, such as copying, pasting, deleting items, changing views, and browsing backward and forward.

## Displaying a toolbar in a window

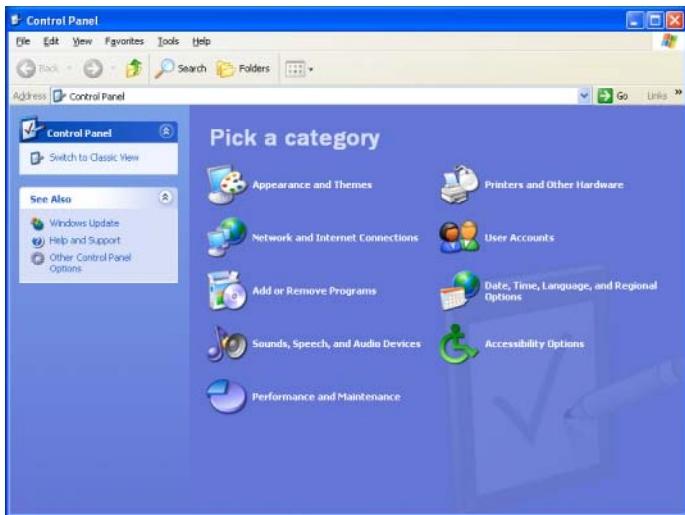
- 1 Click **Start**, then click **My Computer**.  
The My Computer window appears.
- 2 On the **View** menu, point to **Toolbars**, then click the name of the toolbar you want to display.  
The toolbar appears below the menu bar of the current window.

## Displaying information about each folder

In addition to displaying the contents of each window, you might find it helpful to have the operating system display the name of the folder and brief information about how to use the folder. This means displaying an individual window as a Web page.

- 1 Click **Start**, then click **My Computer**.  
The My Computer window appears.

- 2** Open the folder you want to view as a Web page.
- 3** In the **Tools** menu, select **Folder Options**.
- 4** In the Tasks section, click the button for **Show common tasks in folders**.
- 5** Click **Apply**, then **OK**.



*Sample Control Panel window as a Web page*

The addition of the name of the folder and instructions for how to use the folder on the left give the window the appearance of a Web page.

## Using your computer at the office

By connecting an external monitor, external full-size keyboard, an external mouse, and an external diskette drive, you can work with your notebook as if it were a standard office computer.



An external monitor connects to the RGB (monitor) port.



An external mouse, keyboard, and diskette drive connect to the USB ports.

## Setting up for communications

To connect to the Internet, use an online service, or communicate across the telephone lines with another computer, you need:

- ❖ A modem (one comes with your computer)
- ❖ A telephone line
- ❖ A browser or communications program
- ❖ An Internet Service Provider (ISP) or online service if you plan to use the Internet

## Determining the COM port

Your modem is connected to one of the computer's COM (communications) ports. The default setting for the modem is COM3.

The following procedure is intended to support you if you need to either upgrade your modem or reset the port to the default settings.

If you're having trouble connecting through the modem, you may need to determine the current COM port name and possibly change it.

To find out which port your modem is connected to in the operating system:

- 1** Click Start, Control Panel, then Printers and Other Hardware.
- 2** Click Phone and Modem options.
- 3** The Phone and Modem options window appears.
- 4** Click the **Modems** tab.  
A location box appears.
- 5** In the **Attached to** field, the COM port is specified.
- 6** Make a note of the COM port number.

- 
- 7 To verify that the modem is set up properly, double-click the COM port to which your modem is connected.  
The Modem AMR Properties box appears.
  - 8 In the device status area, the computer should indicate whether the modem is working properly.
  - 9 If the modem isn't working properly, click **Troubleshooting** and follow the instructions.
  - 10 Click **OK** to close the properties box, then the Phone and Modem options box.
  - 11 Close the Control Panel.

## Connecting the modem to a telephone line

Before you can use the modem, you must connect it to a standard voice-grade telephone line.

## Setting up a dial-up connection

To set up a dial-up connection, use the Dial-Up Networking Wizard:

- 1 Click **Start** and point to **All Programs**.
- 2 Point to **Accessories**, then to **Communications**, and click **New Connection Wizard**.
- 3 Click **Next**.
- 4 Select the type of connection you want to make.
  - ❖ Connect to the Internet
  - ❖ Connect to the Network at My Workplace
  - ❖ Set up a home or small office network
  - ❖ Set up an advanced connection
- 5 Click **Next** and follow the directions on the screen.

The computer connects to the network.

## Exchanging data with another computer

To transfer a large amount of information between computers, you need a physical connection and a synchronization program.

You can use the Windows® XP Briefcase or a specialized synchronization program that transfers data using a cable connected to the computers' parallel ports.

### Transferring files using a parallel port connection

To transfer files using the computers' parallel ports, you need a LapLink®- compatible parallel cable.

#### Getting started

- 1** Connect the cable.
- 2** Load the transfer program on both computers.
- 3** Set any specific options.
- 4** Start the transfer.
- 5** When you have finished transferring files, close the programs on both computers.

#### Getting help transferring files

- 1** Click **Start**, then **Help and Support**.  
The Help and Support window appears.
- 2** Click the **Index** button.
- 3** In the dialog box, type direct cable connections.
- 4** Follow the online guide instructions.

---

## Connecting to the Internet

To connect to the Internet you may need:

- ❖ A modem (one comes with your computer)
- ❖ A telephone line, DSL, a cable connection, or a satellite link
- ❖ A browser or communications program
- ❖ An Internet Service Provider (ISP)

Once you have established an ISP account, you can access the Internet.

Connect to the Internet by using a telephone and modem or through other higher-speed communication methods, such as Digital Subscriber Lines (DSL), cable or a satellite link.

After your Internet connection has been made, start your Web browser.

If you are using your computer at the office, then you probably connect to the Internet through your company's network. See your network administrator about connecting to the Internet.

### Using a modem

If you're using a modem, you connect the modem to one of the computer's COM (communications) ports. The default setting for the modem is COM3.

If you are having trouble connecting through the modem, you may need to determine the current COM port name and possibly change it.

For more information on connecting a modem, see “[Connecting the modem to a phone line](#)” on page 92.

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## An overview of using the Internet

The following sections give a quick introduction to the Internet and some of its exciting features, under these headings:

- ❖ The Internet
- ❖ The World Wide Web
- ❖ Signing up with an Internet Service Provider
- ❖ Getting started
- ❖ Surfing the Internet
- ❖ Internet features
- ❖ Uploading and downloading files from the Internet

For more information about the Internet, see “[Lesson 3: Learning about the Internet](#)” on page 124.

### The Internet

The Internet is an association of thousands of networks and millions of computers around the world connected by communications lines. They all work together to share information.

### The World Wide Web

The World Wide Web (or ‘Web’) is a subset of the Internet — a collection of interlinked documents (located on computers connected to the Internet) that work together using a specific Internet protocol called Hypertext Transfer Protocol (HTTP).

The World Wide Web offers information as text, images, audio, or video to be referenced from anywhere in the world. Special programs called Web browsers are specifically designed to work with HTTP. They make it easier to connect to a particular network address and send and receive information.

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## Internet Service Providers

To connect a computer directly to the Internet, many people and businesses use an Internet Service Provider (ISP). An ISP is a company that has the equipment and the telecommunication lines necessary to maintain an Internet connection.

You can connect to the Internet by using a telephone and modem or through other higher-speed communication methods such as Digital Subscriber Lines (DSL), cable, and satellite links.

## Signing up with an Internet Service Provider



Microsoft's Web browser, Internet Explorer, which is preinstalled on your system, is automatically configured so that when you first start it, it guides you through signing up for a new ISP account, or assists you in setting up your computer to work with your existing ISP.

Once you have established an ISP account, you can access the Internet.

## Surfing the Internet

Once connected to the Internet, the Web browser displays a home page, for example, your ISP's home page on the Internet or your company's Web site home page.

To visit a desired Web site, type in the Web address. The Web address, or Uniform Resource Locator (URL), is a unique identifier for that computer system linked to the Internet. Web addresses can also appear within a Web page's text, and are known as links. Clicking a link automatically transfers your Web browser to that site.

You can also use a Search Engine, a Web site specifically designed to help you look for information.

## Internet features

The Internet offers many types of communication tools to help you perform many tasks.

- ❖ Internet email

To send and receive email of your own, you need a mailbox on the Web, or an email address.

If you have an account with an ISP, you can probably set up an email address at the same time as you sign up for the service.

- ❖ Internet chat rooms

A chat room is a Web site that offers a place where people with similar interests and ideas can communicate in real-time, one-on-one or in groups, by typing messages which are instantly viewed by others on their computer screens.

- ❖ Internet news groups

A news group is similar to a chat room, but instead of using a dedicated site to converse about a specialized subject with others in real-time, it uses a Web site as a clearinghouse where all the messages are placed, like a gigantic bulletin board.

- ❖ Online shopping

Many Web sites offer products and services for sale.

## Uploading and downloading files on the Internet

Transferring files from one computer to another is termed uploading (transferring data from your computer to a site on the Web), or downloading (transferring data from a site on the Web to your computer).

There are several ways to upload or download data. It can be as simple as attaching a file or document to an email, or you can use the HTTP features of your Web browser to transfer

large amounts of data. You can also use the File Transfer Protocol (FTP) supported by a separate software program.

## Exploring video features

Your computer's video features provide the viewing of presentations or DVD movies on the computer screen.



**TECHNICAL NOTE:** Video CD playback capability is not enabled on all systems.

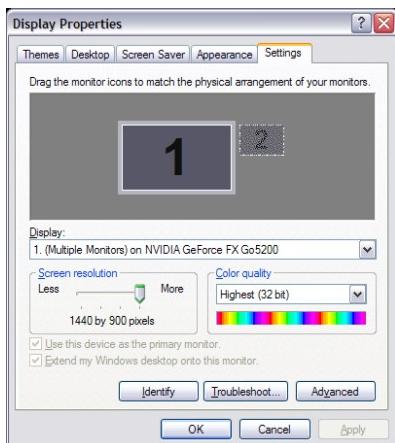


**HINT:** There are no menus for Video CD 1.0 titles.

## Changing the display properties setting

- 1 Right-click anywhere on your desktop and select **Properties**.

The Display Properties dialog box appears.



*Sample Display Properties dialog box*

- 2 Click the **Settings** tab.
- 3 Slide the Screen area slider bar toward **Less** until the setting reads **800 x 600**, then click **Apply**.

The screen blinks momentarily while the settings are adjusted.
- 4 The Monitor Settings window appears and asks if you want to keep the settings.
- 5 Click **Yes**.
- 6 To change the settings back, repeat steps 2 through 5.

## Display settings hot key

Using the Fn + F5 keys, you can set your system's display to view DVD movies or presentations on an external device. For more information, see "Display modes" on page 254.

## Exploring audio features

You can use your computer to record sounds using an external microphone. You can play .wav sound files or audio CDs using the built-in speakers, headphones or external speakers.

### Recording sounds

You can make audio recordings and save them as .wav files by connecting an external microphone or other sound source to the microphone jack and using the Sound Recorder feature in the operating system.

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DEFINITION: A .wav (pronounced "wave") file is a format for storing sound in files.

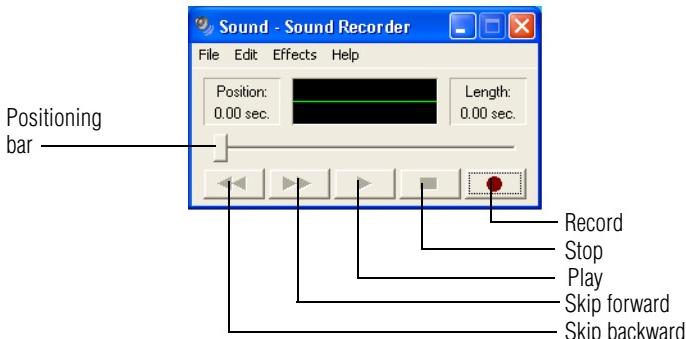
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TECHNICAL NOTE: If you record MP3 files, you will only be able to play them on a device capable of playing MP3 files.

## Using a microphone

- 1 Connect an external microphone to the computer.
- 2 Click **Start**, point to **All Programs**, **Accessories**, **Entertainment**, then click **Sound Recorder**.



*Sample Sound Recorder screen*



- 3 Click the **Record** button and speak normally into the microphone.

**NOTE**

You can only record 60 seconds at a time.



- 4 When you have finished recording, click the **Stop** button.
- 5 To hear what you just recorded, click the **Play** button.
- 6 To save the file, select **Save** from the **File** menu.

## Adjusting recording settings

The better the quality of the recording, the more disk space the sound file requires. Experiment to find a balance that fits your needs.

- 1 Open Sound Recorder, if necessary (click **Start**, point to **All Programs**, **Accessories**, **Entertainment**, then click **Sound Recorder**).
- 2 In the Sound Recorder window, click **Edit**, then click **Audio Properties**.
- 3 In the Audio Properties dialog box, adjust the Recording Volume and Preferred device.
- 4 Click **OK**.

Your new settings take effect the next time you record.

## Using external speakers or headphones

Your computer is equipped with a full stereo sound system with internal speakers. Instead of using the internal speakers, you can connect headphones or a pair of external stereo speakers.



TECHNICAL NOTE: Use amplified speakers that require an external power source. Other types of speakers will be inadequate to produce sound from the computer.

To play back sound files through external speakers or headphones:



- 1 Locate the headphone jack on the left side of the computer.
- 2 Using any necessary adapters, plug the cable from the headphones or external speakers into the headphone jack.

The headphone jack requires a 16-ohm stereo mini-jack.

## Connecting a monitor, keyboard and mouse

By connecting an external monitor, external full-size keyboard and a mouse, you can work with your notebook as if it were a standard office desktop computer.

-  You can connect an external monitor to the RGB (monitor) port. For more information, see “[Back](#)” on page 39.
-  You can connect an external USB-compatible keyboard and a USB-compatible mouse to one of the three USB ports. For more information about connecting a mouse, see “[Connecting a mouse](#)” on page 66.

## Using PC Cards

PC Cards expand your computer’s capabilities and usefulness. You can purchase additional PC Cards from your dealer. Most PC Cards conform to the PCMCIA (Personal Computer Memory Card International Association) standard.

Your computer has a single PC Card slot and supports Type II cards:

Check the documentation that came with the PC Card to see if it conforms to the PCMCIA 2.1 standard, or later. Other cards may work with your computer, but are likely to be much more difficult to set up and use.

### PC Card supporting software

PC Cards require Card and Socket Services software — a set of programs that acts as a translator between the PC Card and the computer, and that makes hot swapping (switching cards while the computer is on) possible.

The operating system provides the Card and Socket Services for your PC Card. Even if your PC Card comes with its own version of Card and Socket Services, you should use the files included in the operating system.

## Inserting PC Cards

**NOTE**

Use caution when lifting or turning your computer. Failure to do so may result in damage to components, such as cables, attached to your computer, or to the computer itself.

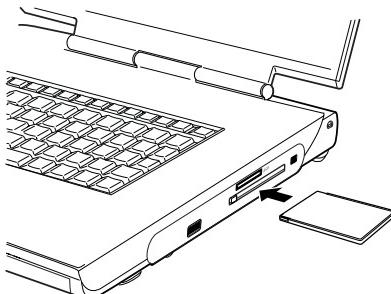
Before you insert a PC Card, refer to the documentation that comes with the card to see if you need to do anything before you insert it.

To insert a PC Card:

- 1 Turn off the computer.

You may also hot swap a PC Card. Stop the PC Card by clicking the **Safely Remove Hardware** icon on the System tray. After the Safe to Remove Hardware message appears, it is safe to remove the PC Card.

- 2 Align the card connectors with an available PC Card slot and carefully slide the card into the slot until it locks into place.



*Inserting a PC Card*

**CAUTION**

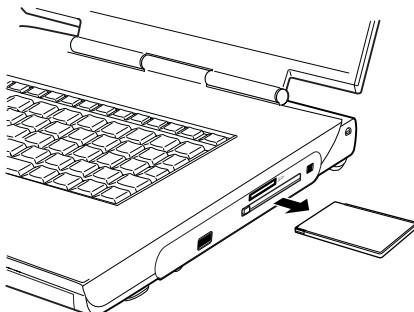
To avoid damaging the PC Card or the computer, don't force the card into the PC Card slot.

## Removing PC Cards

- 1 Stop the PC Card by clicking the **Safely Remove Hardware** icon on the System tray.

After the Safe to Remove Hardware message appears, it is safe to remove the PC Card.

- 2 To remove the PC Card, press the slot's eject button once.
- 3 Remove the PC Card and store it properly.



*Removing a PC Card*

## Hot swapping

One of the great things about PC Cards is that you can replace one PC Card with another while the computer is on. This is called "hot swapping."

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## Hot swapping precautions

Although you can insert a PC Card at any time, to avoid data loss never remove a card while it is in use. For example:

- ❖ Never remove a hard disk card while the system is accessing it.
- ❖ Never remove a network card while you are connected to a network.

Before removing a PC Card, stop it by clicking the **Safely Remove Hardware** icon on the System tray. Once the PC Card has stopped, you can safely remove it. See “[Removing PC Cards](#)” on page 216.

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**CAUTION**

Never swap modules when the computer is in Hibernation or Standby mode. This is known as “warm swapping” and is not supported with this computer. For more information on Hibernation and Standby modes, see “[Hibernation command](#)” on page 94 and “[Stand By command](#)” on page 95.

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# Chapter 8

## If Something Goes Wrong

Some problems you may encounter when using your notebook computer are relatively easy to identify and solve. Others may require help from your dealer or the manufacturer of a software program.

This chapter aims to help you solve many problems by yourself. It covers the problems you are most likely to encounter.

If all else fails, contact Toshiba. You will find information on Toshiba's support services at the end of this chapter.

### **Your program stops responding.**

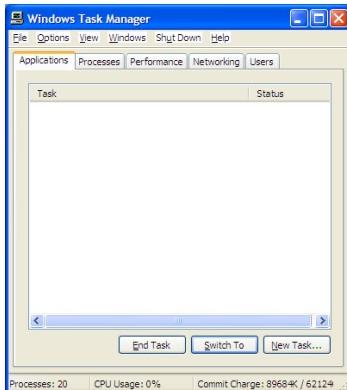
If you are working with a program that suddenly freezes all operations, chances are the program has stopped responding. You can exit the failed program without shutting down the operating system or closing other programs.

To close a program that has stopped responding in the Windows<sup>®</sup> XP operating system:

- 1** Press Ctrl, Alt, and Del simultaneously.
- 2** The Windows Task Manager appears.

- 
- 3 Click the **Applications** tab.

If a program has stopped responding, the words “not responding” appear beside its name in the list.



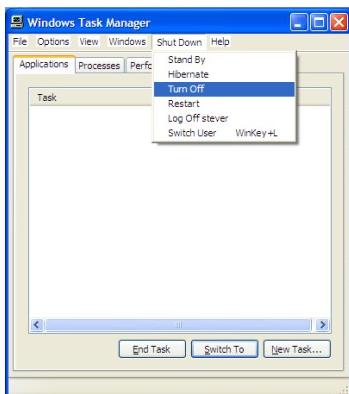
*Windows Task Manager Applications tab*

- 4 Select the program you want to close, then click **End Task**.

Closing the failed program should allow you to continue working. If it does not, continue with step 3.

- 5 Close the remaining programs one by one by selecting the program name, then **End Task**.

- 6 Select the **Shut Down** menu, then click **Shut down**.



*Windows Task Manager Shutdown menu, Turn Off option*

The computer shuts down.

### Your program performs an illegal operation.

If you receive the message, “Your program has performed an illegal operation,” you should record the details of the message and consult the software manufacturer.

To record the details:

- 1** Click the **Details** button and select the text the operating system displays.

The Details button displays information that the software manufacturer needs to help you solve your problem.

- 2** Press **Ctrl** and **c** simultaneously to copy the text to the clipboard.
- 3** Open Notepad (click **Start**, point to **All Programs**, then point to **Accessories** and click **Notepad**).
- 4** Press **Ctrl** and **v** simultaneously to paste the details into Notepad.
- 5** Add a paragraph break and type some notes describing what you were doing when you received the message.
- 6** Save the file and refer to it when you contact the software manufacturer.

## Problems when you turn on the computer

These problems may occur when you turn on the power.

### The computer will not start.

Make sure you attached the AC adapter and power cable properly or installed a charged battery.

Press and hold down the power button for a few seconds.

If you are using the AC adapter, check that the wall outlet is working by plugging in another device, such as a lamp.

### The computer starts but, when you press a key, nothing happens.

You are probably in Standby mode and have a software or resource conflict. When this happens, turning the power on returns you to the problem instead of restarting the system. To clear the condition, press the power button until it turns off the computer.

Clearing the condition may get the computer running, but it won't solve a resource conflict. Read the documentation that came with the conflicting device and "[Resolving a hardware conflict](#)" on page 224.

### The computer displays the WARNING RESUME FAILURE message.

The computer was placed in Standby mode and the battery has discharged. Data stored in the computer's memory has been lost. Press Enter to continue booting.

To charge the battery, leave the computer plugged into a live wall outlet for several hours. For more information, see "[Power and the batteries](#)" on page 229.

### The computer displays the Non-System disk or disk error message.

Press any key. If this does not resolve then problem, press Ctrl, Alt, and Del to restart the computer.

## The Windows® operating system is not working

Once you are familiar with the desktop and used to the way the operating system responds to your work routine, you can easily detect if the operating system is not working correctly. For example:

- ❖ The operating system fails to start after the Starting Windows XP message appears.
- ❖ The operating system takes a long time to start.
- ❖ The operating system responds differently from the normal routine.
- ❖ The screen does not look right.

Unless a hardware device has failed, problems usually occur when you change the system in some way such as installing a new program or adding a device.

If you experience any of these problems, use the options in the Startup menu to fix the problem.

### Using Startup options to fix problems

If the operating system fails to start properly, you may have to change your system's configuration or verify the startup procedure to fix the problem. To do this, use the options in the Startup menu.

To open the Startup menu:

- 1 Restart your computer.
- 2 Press F8 when your computer starts.

The Windows® Advanced Options menu displays these options:

- ❖ Safe Mode
- ❖ Safe Mode (with Networking)

- ❖ Safe Mode (with Command Prompt)
- ❖ Enable Boot Logging
- ❖ Enable VGA Mode
- ❖ Last known good configuration (your most recent settings that worked)
- ❖ Directory services restore mode (Windows® domain controllers only)
- ❖ Debugging Mode
- ❖ Start Windows® normally
- ❖ Reboot

For detailed information, refer to your operating system's documentation.

## Internet problems

### My Internet connection is very slow.

Many factors contribute to the speed with which you can surf the Internet. They include: modem speed, time of day (when everyone else is surfing, your access can be slow) and popularity of the site. If accessing a particular site is very slow, try later.

### My browser can't find the URL address I typed in.

Make sure you separated the domain names of the address with the forward slash (/). Check the spelling of each name and the syntax of the address carefully. A single incorrect letter or missed character, comma instead of period (“dot”) or other mistake makes it impossible for your browser to locate the site.

### My browser can't find a site I bookmarked.

The World Wide Web is constantly changing. A site you bookmarked yesterday may not be available today or its server may be down for temporary repair. Try again later.

## The Windows® XP operating system can help you

If the operating system has started properly, but you still have a problem using your computer, the online Help can assist you in troubleshooting the problem.

To access Windows® XP Help and Support:

- 1** Click **Start**, then click **Help and Support**.

The Help and Support window appears.

- 2** Then do one or both of the following:

- ❖ In the search field, type in the topic of the problem with which you need help and follow the on-screen instructions.
- ❖ Click a problem you would like help with from the listings and follow the on-screen instructions.

## Resolving a hardware conflict

If you receive an error message telling you there is a device driver conflict or a general hardware problem, try using Windows® Help and Support to troubleshoot the problem first.

For help on hardware conflicts:

- 1** Click Start, then click **Help and Support**.
- 2** Click the **Hardware** link in the window.  
A list of category links appear.
- 3** Click the **Fixing a hardware problem** or other appropriate link.
- 4** Choose from specific topics and follow the steps.

If there is still a problem, the operating system should display a message that explains what the conflict is.

## A plan of action

The smooth operation of the system depends on the interaction of all devices, programs, and features. If the system or one of its attached devices isn't working, resolving the problem can be time-consuming and frustrating.

The recommended procedure for getting multiple devices to work together is to add and set up one device at a time. After you add each device, test it to make sure it and all previously connected devices work.

The device most recently connected to the system is the one most likely to be causing a hardware conflict.

## Resolving hardware conflicts on your own

Computer components need resources to accomplish a task. A device, such as a disk drive or a modem, needs a channel to the computer's Central Processing Unit (CPU). It also needs a direct channel to the computer's memory to store information as it works. These channels of communication are commonly referred to as system resources.

## Direct Memory Access

Similarly, the data required by the device is stored in a specific place or address in memory called the Direct Memory Access (DMA). The DMA provides a dedicated channel for adapter cards to bypass the microprocessor and access memory directly. If two or more devices use the same DMA, the data required by one device overwrites the data required by the other. That may cause a hardware conflict.

## Plug and Play

With Plug and Play and the Windows<sup>®</sup> XP operating system, avoiding hardware conflicts is easy. Plug and Play is a computer standard that helps the system BIOS (basic input/output system) and the operating system to automatically assign resources to Plug and Play-compliant devices. In

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theory, if every device connected to the computer is Plug and Play-compliant, no two devices will compete for the same system resources. Simply plug in the device and turn on your computer. The operating system automatically sets up your system to accommodate the new device.

If you install an older (legacy) device that the operating system cannot recognize, the operating system may have difficulty assigning resources to it. As a result, a hardware conflict can occur. To see what resources the operating system has assigned to the device, see “[Checking device properties](#)” on page 227.

## Resolving conflicts

There are three things you can do to resolve hardware conflicts:

- ❖ Disable the device.  
For an older device, remove it from the computer. For a Plug and Play device.
- ❖ Disable another system component and use its resources for the new device.
- ❖ Reconfigure the device so that its requirements do not conflict. Refer to the device’s documentation for instructions about changing settings on the device.

## Fixing a problem with Device Manager

Device Manager provides a way to check and change the configuration of a device.

---

**CAUTION**

Changing the default settings using Device Manager can cause other conflicts that make one or more devices unusable. Device Manager is a configuration tool for advanced users who understand configuration parameters and the ramifications of changing them.

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## Disabling or enabling a device

- 1 Click **Start**, click the **My Computer** icon with the secondary button, then click **Properties**.

The System Properties dialog box appears.

- 2 Click the **Hardware** tab.
- 3 Click the **Device Manager** button.
- 4 Select the specific device from the device category.
- 5 To enable a device, look at the far right of the toolbar. Look for an icon of a monitor with a strike mark through a circle on the front. When you mouse over the small icon, the status of Disabled displays.

To disable a device, look at the far right of the toolbar. Look for an icon of a monitor with a blue check mark on it. When you mouse over the small icon, the status of Enabled displays.

- 6 Click the icon.
- 7 You are given the option of disabling or enabling the device.

## Checking device properties

Device Manager provides a way to view the properties of a device. Properties include the name of the manufacturer, the type of device, the drivers installed, and the system resources assigned to the device.

To check a device's properties:

- 1 Click **Start**.
- 2 Click **My Computer** with the secondary button, then click **Properties**.

The System Properties dialog box appears.

- 3 Click the **Hardware** tab.

- 
- 4 Click the **Device Manager** button.
  - 5 To view the device(s) installed, double-click the device type.
  - 6 To view the properties, double-click the device.

The operating system displays the Device Properties dialog box, which provides an array of tabs. They include:

- ❖ The **General** tab, which provides basic information about the device.
- ❖ The **Resource** tab, which lists resources assigned to the monitor, DVD-ROM, and other power-using functions.
- ❖ The **Drivers** tab, which displays the drivers being used by the device.

A Troubleshooting button is also present.

Click **troubleshooting**.

A Help and Support window for that device appears.

For more information about Device Manager, refer to Windows® XP online help.

## Memory card problems

Incorrectly connected or faulty memory modules may cause errors that seem to be device-related. It is worthwhile checking for these first:

- 1 Turn off the computer via the Start menu.
- 2 Remove the memory module.
- 3 Reinstall the memory module, following the instructions in “[Using the computer for the first time](#)” on page 59, and making sure it is seated properly.
- 4 Check for the error again.

- 
- 5 If the error recurs, remove the memory module entirely and check for the error again.

If removing the memory module eliminates the error, the memory module may be faulty. If the error recurs without the memory module installed, the error is not caused by the memory module.

---

**NOTE** Toshiba recommends using only memory approved by Toshiba.

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## Power and the batteries

Your computer receives its power through the AC adapter and power cable or from the system batteries (main battery and optional secondary battery). Power problems are interrelated. For example, a faulty AC adapter or power cable will neither power the computer nor recharge the batteries.

Here are some typical problems and how to solve them:

### The AC power light does not come on when you plug in the AC adapter and power cable.

Make sure the AC adapter and power cable are firmly plugged into both the wall outlet and the computer.

If the AC power light still does not come on, check that the wall outlet is working properly by plugging in a lamp or other appliance.

### The AC adapter and power cable work correctly, but the battery will not charge.

The battery doesn't charge while the computer is consuming full power. Try turning off the computer.

The main battery may not be inserted correctly in the computer. Turn off the computer, remove and replace the battery.

---

The battery may be too hot or too cold to charge properly. If you think this is the probable cause, let the battery reach room temperature and try again.

If the battery has completely discharged, it will not begin charging immediately. Leave the AC adapter and power cable connected, wait 20 minutes and see if the battery is charging.

If the battery light is glowing after 20 minutes, let the computer continue charging the battery for at least another 20 minutes before you turn on the computer.

If the battery light does not glow after 20 minutes, the battery may have reached the end of its useful life. Try replacing it.

### **The battery appears not to power the computer for as long as it usually does.**

If you frequently recharge a partially charged battery, it may not charge fully. Let the battery discharge completely, then try charging it again.

Check the power options using the Toshiba Power Management Utility. Have you added a device, such as a PC Card or memory module, that takes its power from the battery? Is your software using the hard disk more? Is the display power set to turn off automatically? Was the battery fully charged to begin with? All these conditions affect how long the charge lasts.

For more information on maximizing battery power, see “Charging the battery” on page 105.

## **Keyboard problems**

If, when you type, strange things happen or nothing happens, the problem may be related to the keyboard itself.

### **The keyboard produces unexpected characters.**

A keypad overlay may be on. If the numeric keypad or cursor control light is on, press Fn and F10 simultaneously to turn off the cursor control light or press Fn and F11 simultaneously to turn off the numeric keypad light.

---

If the problem occurs when both the keypad overlays are off, make sure the software you are using is not remapping the keyboard. Refer to the software's documentation and check that the program does not assign different meanings to any of the keys.

### You have connected an external keyboard and the operating system displays one or more keyboard error messages.

If you have a second keyboard, try it. If it works, the first keyboard may be defective or incompatible with your computer.

## Display problems

Here are some typical display problems and their solutions:

### The display is blank.

Display Auto Off may have gone into effect. Press any key to activate the screen.

You may have activated the instant password feature by pressing Fn and F1 simultaneously. If you have registered a password, press the Enter key, type the password and press Enter. If no password is registered, press Enter. The screen reactivates and allows you to continue working.

If you are using the built-in screen, make sure the display priority is not set for an external monitor. To do this, press Fn and F5 simultaneously (once). If this does not correct the problem, press Fn and F5 simultaneously again to return the display priority to its previous setting.

If you are using an external monitor:

- ❖ Check that the monitor is turned on.
- ❖ Check that the monitor's power cable is firmly plugged into a working power outlet.
- ❖ Check that the cable connecting the external monitor to the computer is firmly attached.

- ❖ Try adjusting the contrast and brightness controls on the external monitor.
- ❖ Press Fn and F5 simultaneously to make sure the display priority is not set for the built-in screen.

### The screen does not look right.

You can change the display settings by clicking a blank area of the desktop with the secondary control button, then clicking Properties. This opens the Display Properties dialog box. The Appearance tab of this dialog box allows you to choose the colors for the screen. The Settings tab allows you to choose the screen resolution.

### The built-in screen flickers.

Some flickering is a normal result of the way the screen produces colors. To reduce the amount of flickering, try using fewer colors.

To change the number of colors displayed:

- 1 Point at the desktop and click with the secondary button.
- 2 Click **Properties**, and then the **Settings** tab.
- 3 Choose a lower quality color option and click **OK**.

For more information, see Windows® Help.

### A message tells you that there is a problem with your display settings and that the adapter type is incorrect or the current settings do not work with your hardware.

Reduce the size of the color palette to one that is supported by the computer's internal display.

To change the display properties:

- 1 Point at the desktop and click with the secondary button. The Display Properties window appears.
- 2 Click **Properties**, then click the **Settings** tab.
- 3 Adjust the screen resolution and/or color quality.

---

**4 Click OK.**

**The display mode is set to Simultaneous and the external display device does not work.**

Make sure the external monitor is capable of displaying at resolutions of 800 x 600 or higher. Devices that do not support this resolution will only work in Internal/External mode.

**Small bright dots appear on your TFT display when you turn on your computer.**

Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. The small bright dots that appear on your display are an intrinsic characteristic of the TFT manufacturing technology.

## Disk drive problems

Problems with the hard disk usually show up as an inability to access the disk or as sector errors. Sometimes a disk problem may cause one or more files to appear to have garbage in them. Typical disk problems are:

**You are having trouble accessing a disk, or one or more files appear to be missing.**

Make sure you are identifying the drive by its correct name (for example, C:).

## Error-checking

Run Error-checking, which analyzes the directories, files and NT file system (NTFS) on the disk and repairs any damage it finds:

To run Error-checking:

- 1 Click Start, then click My Computer.**
- 2 Right-click the drive you want to check.**

The drive's properties box appears.

- 3** Click on **Properties**.
- 4** Click the **Tools** tab.
- 5** Click the **Check now** button.

The Check Disk box appears (for example, Check Disk C).

- 6** You can choose one or both options:
  - ❖ Automatically fix file system errors
  - ❖ Scan for and attempt recovery of bad sectors
  - ❖ Click **Start**.

Error-checking runs the test.

### **Your hard disk seems very slow.**

If you have been using your computer for some time, your files may have become fragmented. Run Disk Defragmenter. To do this, click **Start**, point to **All Programs, Accessories, System Tools**, and click **Disk Defragmenter**.

### **Your data files are damaged or corrupted.**

Refer to your software documentation for file recovery procedures. Many software packages automatically create backup files.

You may also be able to recover lost data using utility software, which is available from your dealer.

### **Some programs run correctly but others do not.**

This is probably a configuration problem. If a program does not run properly, refer to its documentation and check that the hardware configuration meets its needs.

## DVD-ROM or multi-function drive problems

### You cannot access a disc in the drive.

Make sure the drive tray has closed properly. Press gently until it clicks into place.

Open the drive tray and remove the disc. Make sure the drive tray is clean. Any dirt or foreign object can interfere with the laser beam.

Examine the disc to see whether it is dirty. If necessary, wipe it with a clean cloth dipped in water or a neutral cleaner.

Replace the disc in the tray. Make sure it is lying flat, label side uppermost. Press the disc down until it locks on the spindle. Close the drive tray carefully, making sure it has shut completely.

### You press the disc eject button, but the drive tray does not slide out.

Make sure the computer is connected to a power source and turned on. The modular bay drive eject mechanism requires power to operate.

To remove a disc without turning on the computer, use a narrow object, such as a straightened paper clip, to press the manual eject button. This button is in the small hole next to the disc eject button on the right side of the computer.

**CAUTION**

Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer and damage it.

### Pull the tray fully open, remove the disc and place it in its tray.

If the problem is with an application CD-ROM, refer to the software's documentation and check that the hardware configuration meets the program's needs.

---

The color of the materials used to make the disc can affect its reliability. Silver-colored CD-ROMs are the most reliable, followed by gold-colored CD-ROM. Green-colored CD-ROMs are the least reliable.

## Sound system problems

### You do not hear any sound from the computer.

Adjust the volume control.

If you are using external headphones or speakers, check that they are securely connected to your computer.

### The computer emits a loud, high-pitched noise.

This is feedback between the microphone and the speakers. It occurs in any sound system when input from a microphone is fed to the speakers and the speaker volume is too loud. Adjust the volume control.

Changing the settings for the Record Monitor feature in the Recording Control Utility (default Off), or the Mute feature in the Mixer Utility (default Enabled), may cause feedback. Revert to the default settings.

## PC Card problems

PC Cards (PCMCIA-compatible) include many types of devices, such as a removable hard disk, additional memory, or a pager.

Most PC Card problems occur during installation and setup of new cards. If you're having trouble getting one or more of these devices to work together, several sections in this chapter may apply. Verify with the PC Card documentation that it is compatible with Windows® XP.

---

Resource conflicts can cause problems when using PC Cards. See “[Resolving a hardware conflict](#)” on page 224.

## Card Information Structure

When you insert a PC Card into a slot, the computer attempts to determine the type of card and the resources it requires by reading its Card Information Structure (CIS). Sometimes the CIS contains enough information for you to use the card immediately.

Other cards must be set up before you can use them. Use the Windows® XP PC Card (PCMCIA) Wizard to set up the card. Refer to your Microsoft® documentation for more information, or refer to the documentation that came with the PC Card.

Some card manufacturers use special software called *enablers* to support their cards. Enablers result in nonstandard configurations that can cause problems when installing the PC Card.

If your system does not have built-in drivers for your PC Card and the card did not come with an operating system driver, it may not work under the operating system. Contact the manufacturer of the PC Card for information about using the card under the operating system.

## PC Card checklist

- ❖ Make sure the card is inserted properly into the slot.  
See “[Inserting PC Cards](#)” on page 215 for how to insert PC Cards.
- ❖ Make sure all cables are securely connected.
- ❖ Make sure the computer is loading only one version of Card and Socket Services.
- ❖ Occasionally a defective PC Card slips through quality control. If another PCMCIA-equipped computer is

available, try the card in that machine. If the card malfunctions again, it may be defective.

## Resolving PC Card problems

Here are some common problems and their solutions:

### The slots appear to be dead. PC Cards that used to work no longer work.

Check the PC Card status:

- 1** Click **Start**.
- 2** Click **My Computer** icon with the secondary button, then click **Properties**.

The System Properties dialog box appears.

- 3** Click the **Hardware** tab.
- 4** Click the **Device Manager** button.
- 5** Double-click the category listed as **PCMCIA adapter**.

The operating system displays your PC Card's Properties dialog box, which contains information about your PC Card configuration and status.

### The computer stops working (hangs) when you insert a PC Card.

The problem may be caused by an I/O (input/output) conflict between the PCMCIA socket and another device in the system. Use Device Manager to make sure each device has its own I/O base address. See “[Fixing a problem with Device Manager](#)” on page 226 for more information.

Since all PC Cards share the same socket, each card is not required to have its own address.

### Hot swapping (removing one PC Card and inserting another without turning the computer off) fails.

Follow this procedure before you remove a PC Card:

- 1** Click the **PC Card** icon in the system tray.

- 
- 2 Click **Stop xxxx**, where xxxx is the identifier for your PC Card.

The operating system displays a message that you may safely remove the card.

- 3 Remove the card from the slot.
- 

**CAUTION**

Never swap modules when the computer is in Hibernation or Standby mode. This is known as "warm swapping" and is not supported with this computer. For more information on Hibernation and Standby modes, see "[Hibernation command](#)" on page 94 and "[Stand By command](#)" on page 95.

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### **The system does not recognize your PC Card or PCMCIA socket controller.**

- 1 Make sure the computer is not in Standby mode. For more information, see "[Using Stand by](#)" on page 100.
- 2 Turn off the computer.
- 3 Connect the AC adapter and power cable.
- 4 Keep the computer plugged in for about three hours with the power turned off.

The problem may also be caused by a conflict with any additional memory in your system.

Removing a malfunctioning card and reinstalling it can correct many problems. For more information, see "[Inserting PC Cards](#)" on page 215.

### **A PC Card error occurs.**

Reinsert the card to make sure it is properly connected.

If the card is attached to an external device, check that the connection is secure.

Refer to the card's documentation, which should contain a troubleshooting section.

## Printer problems

This section lists some of the most common printer problems:

### The printer will not print.

Check that the printer is connected to a working power outlet, turned on and ready (on line).

Check that the printer has plenty of paper. Some printers will not start printing when there are just two or three sheets of paper left in the tray.

Make sure the USB printer cable is firmly attached to the computer and the printer.

Run the printer's self-test to check for any problem with the printer itself.

Make sure you installed the proper printer drivers, as shown in "[Setting up a printer](#)" on page 68.

You may have connected the printer while the computer is on. Disable Standby mode, turn off the computer, and turn off the printer. Turn the printer back on, make sure it is on line, then turn the computer back on.

Try printing another file. For example, you could create and attempt to print a short test file using Notepad. If a Notepad file prints correctly, the problem may be in your original file.

If you cannot resolve the problem, contact the printer's manufacturer.

### The printer will not print what you see on the screen.

Many programs display information on the screen differently from the way they print it. See if your program has a print preview mode. This mode lets you see your work exactly as it will print. Contact the software manufacturer for more information.

## Modem problems

This section lists common modem problems:

### The modem will not receive or transmit properly.

Make sure the cable from the modem to the telephone line is firmly connected to the computer's modem port and the telephone line jack.

Check the port settings to make sure the hardware and software are referring to the same COM port. See "[Determining the COM port](#)" on page 203.

Check the communications parameters (baud rate, parity, data length and stop bits) specified in the communications program. It should be set up to transmit at 300, 1200, 2400, 4800, 9600, 14400, 28800, 33600 bps (bits per second) or higher. Refer to the program's documentation and the modem manual for information on how to change these settings.

### The modem is on, set up properly and still will not transmit or receive data.

Make sure the line has a dial tone. Connect a telephone handset to the line to check this.

The other system may be busy or off line. Try making a test transmission to someone else.

## Develop good computing habits

Make sure you are prepared.

### Save your work frequently.

You can never predict when your computer will lock, forcing you to close a program and lose unsaved changes. Many software programs build in an automatic backup, but you should not rely solely on this feature. Save your work! See "[Computing tips](#)" on page 75 for instructions.

---

**On a regular basis, back up the information stored on your hard disk.**

Here are some ways you can do this:

- ❖ Copy files to a CD or other media, following the steps in “[Saving your work](#)” on page 80.
- ❖ Connect a tape drive to the system and use specialized software to copy everything on the hard disk to a tape.

Some people use a combination of these methods, backing up all files to tape weekly and copying critical files to media, such as a CD, on a daily basis.

If you have installed your own programs, you should back up these programs as well as your data files. If something goes wrong that requires you to reformat your hard disk and start again, reloading all your programs and data files from a backup source will save time.

**Read the user’s guides.**

It’s very difficult to provide a fail-safe set of steps you can follow every time you experience a problem with the computer. Your ability to solve problems will improve as you learn about how the computer and its software work together.

Get familiar with all the user’s guides provided with your computer, as well as the manuals that come with the programs and devices you purchase.

Your local computer store or book store sells a variety of self-help books you can use to supplement the information in the manuals.

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## If you need further assistance

If you have followed the recommendations in this chapter and are still having problems, you may need additional technical assistance. This section contains the steps to take to ask for help.

### Before you call

Since some problems may be related to the operating system or the program you are using, it is important to investigate other sources of assistance first.

Try the following before contacting Toshiba:

- ❖ Review the troubleshooting information in your Windows® XP documentation.
- ❖ If the problem occurs while you are running a program, consult the program's documentation for troubleshooting suggestions. Contact the software company's technical support group for their assistance.
- ❖ Consult the dealer from whom you purchased your computer and/or program. Your dealer is your best source for current information.

Detailed system specifications are available at [www.ts.toshiba.com](http://www.ts.toshiba.com) by selecting your particular product and model number, clicking **GO**, and then clicking the **Detailed Specs** link from the menu on the left, or just refer to the computer documentation shipped with your product.

For the number of a Toshiba dealer near you in the United States, call: (800) 457-7777.

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## Contacting Toshiba

If you still need help and suspect that the problem is hardware-related, Toshiba offers a variety of resources to help you. You can access Toshiba on the Internet using any Internet browser by typing [support.toshiba.com](http://support.toshiba.com)

### Toshiba voice contact

Before calling Toshiba, make sure you have:

- ❖ Your computer's serial number.
- ❖ The computer and any optional devices related to the problem.
- ❖ The Recovery media that came with your system.
- ❖ Name and version of the program involved in the problem along with its installation CD-ROM.
- ❖ Information about what you were doing when the problem occurred.
- ❖ Exact error messages and when they occurred.

For technical support, call the Toshiba Global Support Centre:

Within the United States at (800) 457-7777

Outside the United States at (949) 859-4273

## Other Toshiba Internet Web sites

<a href="http://toshiba.com">toshiba.com</a>	Worldwide Toshiba corporate site
<a href="http://computers.toshiba.com">computers.toshiba.com</a>	Marketing and product information in the USA
<a href="http://www.toshiba.ca">www.toshiba.ca</a>	Canada
<a href="http://www.toshiba-Europe.com">www.toshiba-Europe.com</a>	Europe
<a href="http://www.toshiba.co.jp/index.htm">www.toshiba.co.jp/index.htm</a>	Japan
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# Appendix A

## Hot Keys

Hot keys are keys that, when pressed in combination with the Fn key, turn system functions on and off. Hot keys have a legend on or above the key indicating the option or feature the key controls.

### Instant password security



Fn + This hot key blanks the display.

### Without a password

The Fn + F1 key combination turns off the display and activates instant security. Using the pointing device or any key will make the display's content reappear, if no password is set for the current user.

### With a password

The Fn + F1 key combination turns off the display and activates instant security.

If you set a blank screen saver, pressing the Fn + F1 key combination to activate instant security will cause the screen to go blank. Using the pointing device or any key will make

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the display's content reappear. The Windows® operating system log-on screen will appear, prompting you for a password. After typing in the password for the current user, press Enter.

To activate the password feature:

- 1** Click **Start, Control Panel**.
- 2** Click **Appearances and Themes**.
- 3** Click one of the following:
  - ❖ **Choose a screen saver** in the “Pick a task” section.
  - ❖ **Display** in the “or pick a Control Panel icon” section.
- The Display Properties window appears.
- 4** If you clicked **Choose a screen saver**, the Screen Saver tab has already been selected. If it isn't selected, click the **Screen Saver** tab.
- 5** Click the **On resume, password protected** check box.
- 6** Click **OK**.

## Maintaining security when the battery is not fully charged

When the battery is not fully charged (even if the computer is operating on AC power) your display may reappear automatically after a short time. To protect your desktop, you must set up a screen saver with a password before activating the password feature.

To set up a password with a screen saver, go to Windows XP help for instructions:

- 1** Click **Start, Help and Support**.
- 2** In the **Search** field, type password screen saver.
- 3** Press Enter.
- 4** Click the **Protect your files with a screen saver password link** located under the suggested topics.

---

Follow the steps listed in the Windows help to set up your password-protected screen saver.

To ensure the password protection is activated after pressing Fn + F1 (to activate instant security), wait ten seconds before walking away from the computer.

## Sound

Fn +  This hot key cycles through the different alarm volume levels.

The alarm volume options are:  
Off, Low, Medium, and High.

Off is always first.

## Power usage mode

Fn + 

This hot key displays the power usage pop-up window and cycles through the battery save modes.

The power usage modes in the operating system under battery power are:

Long Life, Normal, and High Power; DVD Playback,  
Presentation and Super Long Life



*Sample power usage modes*

The power usage mode in the Windows<sup>®</sup> operating system under AC power is Full Power only.

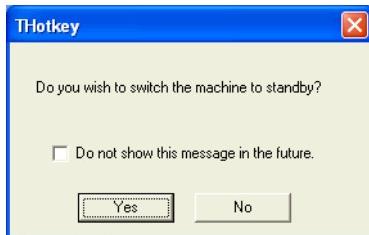
The properties of each mode are set in the Toshiba Power Management utility.

## Stand by mode

Fn + 

This hot key puts the computer into Stand by mode.

- ❖ A message box is displayed by default to confirm that the computer is going into Stand by mode. This message box can be set so it doesn't display.



*Sample Stand by confirmation box*

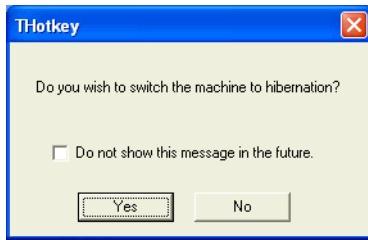
- ❖ For more information about Stand by mode, please see “[Using Stand by](#)” on page 100.

## Hibernation mode

Fn + 

This hot key puts the computer into Hibernation mode.

- ❖ If Hibernation mode is enabled (the default) a message box is displayed by default to confirm the computer is going into Hibernation mode. The message box can be set so it doesn't display.



*Sample Hibernation confirmation box*

- ❖ If Hibernation mode is disabled, this hot key will not respond. For more information on Hibernation mode, see “Using Hibernation” on page 97.

## Display modes

Fn + 

This hot key cycles through the power-on display options.

The display modes are:

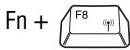
- ❖ Built-in display panel only
- ❖ Built-in display panel and external monitor simultaneously
- ❖ External monitor only
- ❖ Built-in display panel and external video device simultaneously
- ❖ External video device only



*Sample display options window*

In order to use a simultaneous mode, you must set the resolution of the internal display panel to match the resolution of the external display device.

## Enabling a wireless device



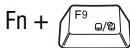
This hot key enables/disables the optional wireless devices in your computer (for systems with Wi-Fi™ only).

The wireless modes are:

Wi-Fi enabled—This enables the Wi-Fi module.

Wi-Fi disabled—This disables the Wi-Fi module.

## Disabling or enabling the TouchPad



This hot key enables/disables the TouchPad.

To use the TouchPad, see “[Disabling or enabling the TouchPad](#)” on page 61.



*Sample disable and enable TouchPad windows*

## Keyboard hot keys

Fn + This hot key turns the cursor control overlay on and off.

Fn + This hot key turns the numeric overlay on and off.

Fn + This hot key turns the scroll lock feature on and off.

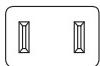
For more information, see “[Overlay keys](#)” on page 78.

# Appendix B

## Power Cable Connectors

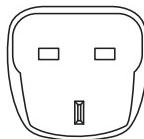
Your notebook computer features a universal power supply you can use worldwide. This appendix shows the shapes of the typical AC power cable connectors for various parts of the world.

### USA and Canada



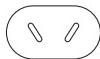
*UL approved  
CSA approved*

### United Kingdom



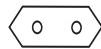
*BS approved*

### Australia



*AS approved*

### Europe



*VDA approved  
NEMKO approved*

# Appendix C

## Using ConfigFree™ with your Toshiba Computer

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ConfigFree™ is a set of utilities used for configuring networks that use both wired and wireless network devices. These utilities include the following:

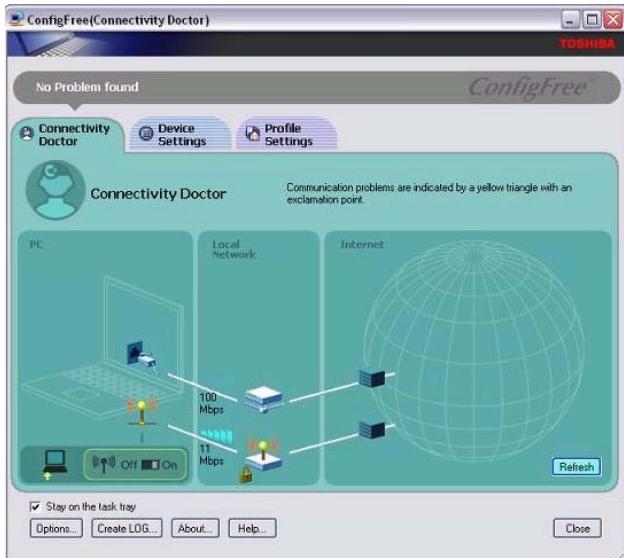
- ❖ Connectivity Doctor — The Connectivity Doctor utility is used to help fix networking problems with your notebook computer. For more information, see “[Connectivity Doctor](#)” on page 260.
- ❖ Device Settings — The Device Settings utility is used to enable and disable any of the wired, wireless, and infrared network devices. You can also change the device properties of your wired and wireless local area network (LAN), and specify settings to automatically switch between wired and wireless LAN. For more information, see “[Device Settings](#)” on page 261.
- ❖ Profile Settings — The Profiles utility is used to enable a faster and more efficient network configuration. Multiple profiles can be created for various network configurations. For more information, see “[Profile Settings](#)” on page 263.
- ❖ Quick Connect — The Quick Connect utility is used to configure a wireless LAN connection (ad hoc

connection) between a personal computer and a Toshiba Wireless Projector. The Toshiba Wireless Projector utility must be installed in order to enable Quick Connect. For more information, see “Quick Connect” on page 264

## Getting Started

This section contains information about the ConfigFree main screen, and how to start and configure ConfigFree.

### ConfigFree Main Screen



*ConfigFree main screen*

- ❖ **Stay on the task tray** — Select this check box to display the ConfigFree icon in the taskbar.
- ❖ **Options** — Use to configure options in ConfigFree. For more information, see “Configuring ConfigFree” on page 259.

- ❖ **Create LOG** — Creates and displays a log file containing diagnostic information about devices connected to the network.
- ❖ **About** — Displays version information about ConfigFree.
- ❖ **Help** — Displays the online help file.

## Starting ConfigFree

To start ConfigFree, do any of the following:

- ❖ (Microsoft® Windows® XP users) Click the **Start** button, and then point to **All Programs**. Point to the **TOSHIBA ConfigFree** folder, and then click **ConfigFree**.
- ❖ (Microsoft® Windows® 2000 users) Click the **Start** button, and then point to **Programs**. Point to the **TOSHIBA ConfigFree** folder, and then click **ConfigFree**.
- ❖ Double-click the **ConfigFree** icon  on the taskbar.
- ❖ Click the **ConfigFree** icon  on the taskbar, and then click the desired utility.
- ❖ Press the **Toshiba Console** button (if applicable to your system) to open the Toshiba Console, and then click the **ConfigFree** icon.

## Configuring ConfigFree

The ConfigFree Option dialog box is used to specify various options, such as whether certain warning messages should display and what information should be captured when creating a profile. You can also enable and disable sounds from this dialog box.

To access the ConfigFree Option dialog box, do one of the following:

- ❖ Open ConfigFree, and then click **Options**.

- 
- ❖ Right-click the **ConfigFree** icon on the taskbar, and then click **Options**.

For more information on configuring ConfigFree, see the online help.

## ConfigFree Utilities

### Connectivity Doctor

The Connectivity Doctor displays the connection configuration and the status of all wired and wireless LAN devices that are connected to the network. For wireless network devices, the signal strength and WEP (Wired Equivalent Privacy) key settings (if applicable) also display.

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**NOTE** Infrared and dial-up devices are not tested by the Connectivity Doctor.

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If a problem, or potential problem, is detected, an exclamation point displays in the Connectivity Doctor screen at the relevant location. You can then view a possible cause and solution for the problem by clicking on the exclamation point.

For example, if the connection to a wireless network cannot be established because the wireless communication switch is turned off, an exclamation point displays next to the wireless communication switch. Upon clicking the exclamation point, a description of the problem and a solution displays.

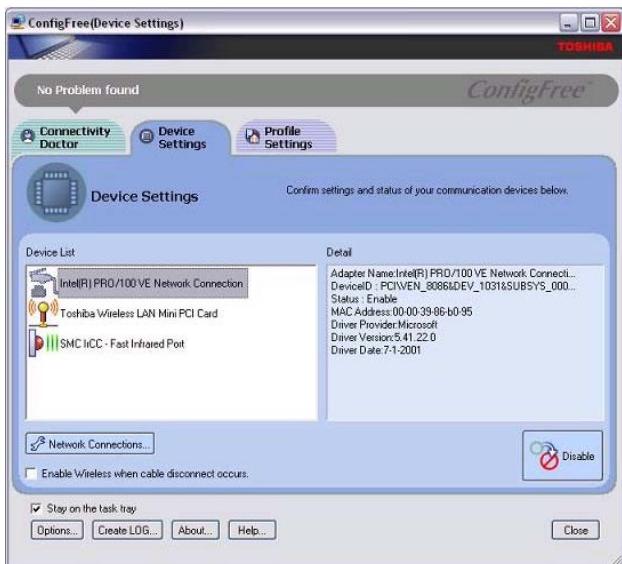


### The Connectivity Doctor

The Connectivity Doctor screen automatically refreshes. However, you can also use the **Refresh** button to refresh the screen.

## Device Settings

The Device Settings screen displays a list of all wired, wireless, and infrared devices that are connected to the network. Detailed information about each device, such as the driver version number and the status, are also displayed.



### *Viewing the device settings*

- ❖ **Network Connections** — Displays the Network Connection window, which contains detailed information about the network connection.
- ❖ **Enable/Disable** — You can easily enable or disable any of the listed devices simply by selecting the desired device, and then clicking the **Enable/Disable** button. Each time a device is enabled or disabled, the status of the device will change.
- ❖ **Enable Wireless when cable disconnect occurs** — Select this check box to enable the Auto Switch feature. For more information, see “[Using Auto Switch](#)” on [page 265](#).

## Profile Settings

The Profile Settings utility displays a list of all the registered profiles in ConfigFree. You can also add, modify, and delete profiles; switch the profile being used; and view specific details about each profile.



### *Viewing registered profiles*

- ❖ **Details** — The **Details** button displays the ConfigFree Details screen. This screen displays detailed information for each profile and can be used to view the various settings for each registered profile.
- ❖ **Auto Switch** — The **Auto Switch** button accesses the Auto Switch feature. For more information, see “[Using Auto Switch](#)” on page 265.
- ❖ **Internet Options** — The **Internet Options** button opens the Microsoft® Windows® Internet Options dialog box. See your Microsoft® Windows® documentation for more information.

## Add, Modify, and Delete a Profile

- ❖ To add a new profile to ConfigFree, click the **Add** button in the Profile Settings screen. To overwrite an existing profile, select the profile to be overwritten, and then click **Add**.
- ❖ To modify an existing profile, select the profile you want to modify, and then click **Modify**.
- ❖ To delete an existing profile, select the profile to be deleted, and then click **Delete**. A message box displays confirming that you want to delete the profile.

## Switch Profiles

To switch the profile that is being used, select the profile you want to switch to, and then click **Switch**.

## Quick Connect

The Quick Connect feature switches the Wireless LAN connection to connect to the Toshiba Wireless Projector.

As a result, you will not be able to use the network to connect to a Toshiba Wireless Projector when the wireless LAN Configuration is set to Ad hoc. If you are connected to an access point, the connection will be broken and later re-established.

If the Toshiba Wireless Projector setting has been changed from the default, change the connection setting by using Quick Connect-Setup menu.

**NOTE**

The connection will be made in Ad hoc mode, therefore, if the setting on the Toshiba Wireless Projector is in Infrastructure mode, it will not connect.

If the wireless mode for the wireless setting is set for 5GHz (802.11a), Quick Connect will change this mode to 2.4GHz (802.11b), and then connect to the projector.

The wireless LAN configuration will return to the default settings under the following conditions:

- ❖ If the Toshiba Wireless Projector utility is closed.
- ❖ If you select Toshiba Wireless Projector (DPJ) from the ConfigFree tray menu (this will disconnect the wireless LAN connection).
- ❖ If you select a profile from the ConfigFree tray menu or when you disable a wireless device.
- ❖ If you close ConfigFree.

## Using Auto Switch

The Auto Switch feature contains options for automatically switching network devices and profiles if a network connection should fail.

- ❖ **Auto Switch (Cable Disconnect)** — This option automatically switches network devices if a wired network cable is disconnected. For more information, see “[Auto Switch \(Cable Disconnect\)](#)” on page 266.
- ❖ **Auto Switch (SSID)** — If your notebook computer is connected to a wireless LAN network, ConfigFree automatically switches profiles if a network failure occurs. For more information, see “[Auto Switch \(SSID\)](#)” on page 266.

A message displays each time the Auto Switch feature is applied. You then have the option of disabling the Auto Switch option for future use.

You can access the Auto Switch feature in any of the following ways:

- ❖ From the taskbar, right-click the ConfigFree icon, and then click Auto Switch.

- ❖ From the Profile Settings screen, you can click the **Auto Switch** button.

## Auto Switch (Cable Disconnect)

If a wired network cable is disconnected from the network, the Auto Switch (Cable Disconnect) option will automatically switch to another network device.

- ❖ **Enable Wireless when cable disconnect occurs** — If your notebook computer is connected to multiple wired LAN devices, and the physical connection to all of these devices is disconnected, ConfigFree switches to a wireless LAN device.

However, if the cable connection to only one wired LAN device is disconnected, ConfigFree will not switch to a wireless device.

## Auto Switch (SSID)

The Auto Switch (SSID) option automatically switches to a different profile if your notebook computer is connected to a wireless LAN network and a network failure occurs.

ConfigFree detects the Service Set Identifier (SSID) of the wireless network that you are connected to. If the SSID matches the Wireless Network SSID specified in Auto Switch, the ConfigFree switches to the corresponding profile.

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**NOTE**

If your notebook computer is connected to multiple wireless LAN devices, the Auto Switch (SSID) feature is disabled. To enable this feature, only one wireless LAN device can be used.

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# Glossary

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TECHNICAL NOTE: Some features defined in this glossary may not be available on your computer.

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## Acronyms

The following acronyms may appear in this user's guide.

<b>AC</b>	alternating current
<b>BIOS</b>	basic input/output system
<b>bps</b>	bits per second
<b>CD</b>	compact disc
<b>CD-ROM</b>	compact disc read-only memory
<b>CD-RW</b>	compact disc rewrite memory
<b>CMOS</b>	complementary metal-oxide semiconductor
<b>COM1</b>	communications port 1 (serial port)
<b>COM2</b>	communications port 2 (serial port)
<b>CPU</b>	central processing unit
<b>DC</b>	direct current

<b>DMA</b>	direct memory access
<b>DIMM</b>	dual inline memory module
<b>DOS</b>	disk operating system
<b>DPI</b>	dots per inch
<b>DSTN</b>	dual supertwist nematic
<b>DVD</b>	digital versatile (or video) disc
<b>DVD-ROM</b>	digital versatile (or video) disc read-only memory
<b>ECP</b>	enhanced capabilities port
<b>EPROM</b>	erasable programmable read-only memory
<b>FAT</b>	file allocation table
<b>FCC</b>	Federal Communications Commission
<b>FIR</b>	fast infrared
<b>GB</b>	gigabyte
<b>HDD</b>	hard disk drive
<b>HTML</b>	Hypertext Markup Language
<b>IEEE</b>	Institute of Electrical and Electronics Engineers
<b>I/O</b>	input/output
<b>IRQ</b>	interrupt request
<b>ISP</b>	Internet service provider
<b>KB</b>	kilobyte
<b>LAN</b>	local area network
<b>LCD</b>	liquid crystal display
<b>LPT1</b>	line printer port 1 (parallel port)
<b>LSI</b>	large-scale integration
<b>MB</b>	megabyte
<b>MIDI</b>	Musical Instrument Digital Interface
<b>NTFS</b>	NT file system
<b>PC</b>	personal computer
<b>PCI</b>	Peripheral Component Interconnect

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<b>PCMCIA</b>	Personal Computer Memory Card International Association
<b>RAM</b>	random access memory
<b>RFI</b>	radio frequency interference
<b>ROM</b>	read-only memory
<b>RTC</b>	real-time clock
<b>SCSI</b>	small computer system interface
<b>SDRAM</b>	synchronous dynamic random access memory
<b>SRAM</b>	static random access memory
<b>SVGA</b>	super video graphics adapter
<b>TFT</b>	thin film transistor
<b>USB</b>	universal serial bus
<b>URL</b>	uniform resource locator
<b>WAN</b>	wide area network
<b>www</b>	World Wide Web

## Terms

The following terms may appear in this user's guide.

### A

**active-matrix display** — A liquid crystal display (LCD) made from an array of liquid crystal cells using active-matrix technology. Also known as a “TFT display,” in its simplest form there is one thin film transistor (TFT) for each cell. This type of display works well with notebook computers because of its shallow depth and high-quality color. Active-matrix displays are viewable from wider angles than most passive-matrix displays.

**adapter** — A device that provides a compatible connection between two units. For example, the computer's internal display adapter receives information from the software and translates it into images on the screen. An adapter can take a number of forms, from a microprocessor to a simple connector. An intelligent adapter (one that is capable of doing some processing) may also be called a controller.

**alternating current (AC)** — The type of power usually supplied to residential and commercial wall outlets. AC reverses its direction at regular intervals. Compare *direct current (DC)*.

**application** — A computer program that you use to perform tasks of a specific type. Applications include word processors, spreadsheets, and database management systems. See also *program*.

**B** **backup** — A copy of a file, usually on a removable disk, kept in case the original file is lost or damaged.

**basic input/output system (BIOS)** — See *BIOS*.

**baud rate** — The speed at which a communication device, such as a printer or modem, transmits information. Baud rate is the number of signal changes per second (not necessarily the same as bits per second). See also *bits per second*.

**BIOS (basic input/output system)** — Basic instructions, stored in read-only memory (ROM), containing the information the computer needs in order to check hardware and load the operating system when you start up the computer.

**bit:** — Short for “binary digit.” A bit is the smallest unit of information used by a computer. A group of eight bits is a byte. See also *byte*.

**bits per second (bps)** — A way of measuring the speed at which information is passed between two devices. The basic measure used in modem communications, bps is similar, but not identical, to the baud rate. See also *baud rate*.

**boot** — To start the computer. The term “boot” originates from bootstrap program (as in “pulling itself up by its bootstraps”), a program that loads and initializes the operating system. See also *reboot*.

**boot disk** — See *system disk*.

**boot priority (startup sequence)** — The order in which the computer accesses its disk drives to locate the startup files. Under the default startup sequence, the computer looks for the startup files in the diskette drive before checking the hard disk.

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**bus** — An electrical circuit that connects the central processing unit (CPU) with other parts of the computer, such as the video adapter, disk drives, and ports. It is the pathway through which data flows from one device to another. See also *bus speed, frontside bus*.

**bus speed** — The speed at which the central processing unit (CPU) communicates with the other parts of the computer.

**byte** — A sequence of eight bits. A byte is the smallest addressable unit of data. See also *bit, gigabyte, kilobyte, megabyte*.

**C**

**cache** — A section of very fast memory in which frequently used information is duplicated for quick access. Accessing data from cache is faster than accessing it from the computer's main memory. See also *CPU cache, L1 cache, L2 cache*.

**CD** — An individual compact disc. See also *CD-ROM*.

**CD-ROM (compact disc read-only memory)** — A form of high-capacity storage that uses laser optics instead of magnetic means for reading data. See also *CD*. Compare *DVD-ROM*.

**central processing unit (CPU)** — The chip that functions as the “brain” of the computer. It takes information from outside sources, such as memory or keyboard input, processes the information, and sends the results to another device that uses the information.

**character** — Any letter, number, or symbol you can use on the computer. Some characters are non-printing characters, such as a paragraph break in a word-processing program. A character occupies one byte of computer storage.

**chip** — A small piece of silicon containing computer logic and circuits for processing, memory, input/output, and/or control functions. Chips are mounted on printed circuit boards.

**click** — To press and release the TouchPad control button or mouse button without moving the cursor or mouse. In the Windows® operating system, this refers to the left mouse button or primary TouchPad control button, unless otherwise stated. See also *double-click*.

**color palette** — A set of specified colors that establishes the colors that can be displayed on the screen at a particular time.

**compatibility** — The extent to which computers, programs, or devices can work together harmoniously, using the same commands, formats, or language as another.

**configuration** — (1) The collection of components that make up a single computer system. (2) How parts of the system are set up (that is, configured).

**controller** — A device that controls the transfer of data from a computer to a peripheral device and vice versa. For example, disk drives, monitors, keyboards, and printers all require controllers.

**CPU** — See *central processing unit (CPU)*.

**CPU cache** — A section of very fast memory residing between the CPU and the computer's main memory that temporarily stores data and instructions the CPU will need to execute commands and programs. See also *cache, L1 cache, L2 cache*.

**cursor** — A symbol that indicates the current position on the screen. The shape of the cursor varies, depending on the program you're using and what you're doing.

## D

**default** — The setting selected by a program when the user does not specify an alternative setting.

**device** — A component attached to the computer. Devices may be external (outside the computer's case) or internal (inside the computer's case). Printers, disk drives, and modems are examples of devices.

**device driver** — A program (called a "driver") that permits a computer to communicate with a device.

**dialog box** — An on-screen window displayed by the operating system or a program giving a direction or requesting input from the user.

**direct current (DC)** — The type of power usually supplied by batteries. DC flows in one direction. Compare *alternating current (AC)*.

**direct memory access (DMA)** — A dedicated channel, bypassing the CPU, that enables direct data transfer between memory and a device.

**directory** — See *folder*.

**disable** — To turn a computer option off. See also *enable*.

**disc** — A round, flat piece of metal, designed to be read from and written to by optical (laser) technology, and used in the production of optical discs, such as CDs and DVDs. Compare *disk*.

**disk** — A round, flat piece of material that can be magnetically influenced to hold information in digital form, and used in the production of magnetic disks, such as diskettes and hard disks. Compare *disc*. See also *diskette, hard disk*.

**disk drive** — The device that reads and writes information and programs on a diskette or hard disk. It rotates the disk at high speed past one or more read/write heads.

**diskette** — A thin, flexible disk in a protective jacket that stores magnetically encoded data. Diskettes can be removed from the computer and come in two sizes: 5.25-inch and 3.5-inch. Your computer uses 3.5-inch diskettes. See also *double-density diskette, high-density diskette*.

**document** — Any file created with an application and, if saved to disk, given a name by which it can be retrieved. See also *file*.

**double-click** — To press the TouchPad control button or mouse button rapidly twice without moving the cursor or mouse. In the Windows® operating system, this refers to the primary TouchPad control button or left mouse button, unless otherwise stated.

**download** — (1) In communications, to receive a file from another computer through a modem or network. (2) To send font data from the computer to a printer. See also *upload*.

**drag** — To hold down the TouchPad control button or mouse button while moving the cursor to drag a selected object. In the Windows® operating system, this refers to the primary TouchPad control button or left mouse button, unless otherwise stated.

**driver** — See *device driver*.

**DVD** — An individual digital versatile (or video) disc. See also *DVD-ROM*.

**DVD-ROM (digital versatile [or video] disc read-only memory)** — A very high-capacity storage medium that uses laser optics for reading data. Each DVD-ROM can hold as much data as several CD-ROMs. Compare *CD-ROM*.

**E** **emulation** — A technique in which a device or program imitates another device or program.

**enable** — To turn on a computer option. See also *disable*.

**executable file** — A computer program that is ready to run. Application programs and batch files are examples of executable files. Names of executable files usually end with a .bat or .exe extension.

**extension** — See *file extension*.

**external device** — See *device*.

**F** **file** — A collection of related information, saved on disk with a unique name. A file may be a program, information used by a program, or a document. See also *document*.

**file allocation table (FAT)** — The section of a disk that keeps track of the location of files stored on the disk.

**file name** — A set of characters that uniquely identifies a file within a particular folder. It consists of two parts: the actual name and the file name extension. See also *file extension*.

**file extension** — The three characters following the period (pronounced “dot”) at the end of a file name. The extension indicates the type of file. Examples are .exe for program files and .hlp for help files. See also *file name*.

**folder** — Also called directory. A container for organizing files saved to a disk. A folder is symbolized on screen by a graphical image (icon) of a file folder. A folder can contain files and other folders.

**format** — (verb) To prepare a blank disk for use with the computer’s operating system. Formatting creates a structure on the disk so the operating system can write information to the disk or read information from it.

**frontside bus** — The primary pathway (bus) between the CPU and the computer’s main memory. Also called “system bus.” See also *bus*.

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**function keys** — The keys labeled F1 through F12, typically located on the keyboard. Their function is determined by the operating system and/or individual programs.

**G**

**gigabyte (GB)** — A unit of data equal to 1,073,741,824 bytes (1024 x 1024 x 1024 bytes). See also *byte*.

**ground** — A conductor to which all components of an electric circuit are connected. It has a potential of zero (0) volts, is connected to the earth, and is the point of reference for voltages in the circuit.

**H**

**hard disk** — A storage device composed of a rigid platter or platters that can be magnetically coded with data. Hard disks hold much more information than diskettes and are used for long-term storage of programs and data. The primary (or only) hard disk in a computer is usually fixed, but some computers have secondary hard disks that are removable. By default, the hard disk is referred to as drive C.

**hardware** — The physical components of a computer system. Compare *software*.

**Hibernate** — A feature of many Toshiba notebook computers that saves to the hard disk the current state of your work, including all open files and programs, when you turn the computer off. When you turn on the computer again, your work is returned to the same state it was when the computer was turned off. See also *Standby, Suspend*.

**high-density diskette** — A 3.5-inch diskette that holds 1.44 MB of data. See also *diskette*.

**hot key** — (1) A feature in which certain keys in combination with the Fn key can set system options or control system parameters, such as the battery save mode. (2) A key or combination of keys that activates a memory resident program.

**hot swapping** — The ability to add or remove devices from a computer while the computer is running and have the operating system automatically recognize the change.

**I**

**icon** — A small image displayed on the screen that represents a function, file, or program.

**interlaced** — A method of refreshing a computer screen, in which only every other line of pixels is refreshed. Interlaced monitors take two passes to create a complete screen image. Compare *non-interlaced*.

**internal device** — See *device*.

**Internet** — The decentralized, world-wide network of computers that provides electronic mail, the World Wide Web, and other services. See also *World Wide Web*.

## K

**keyboard shortcut** — A key or combination of keys that you use to perform a task instead of using a pointing device such as the TouchPad.

**kilobyte (KB)** — A unit of data equal to 1024 bytes. See also *byte*.

## L

**L1 (level one) cache** — Memory cache built into the processor to help improve processing speed. See also *cache*, *CPU cache*, *L2 cache*.

**L2 (level two) cache** — Memory cache installed on the motherboard to help improve processing speed. It is slower than L1 cache and faster than main memory. See also *cache*, *CPU cache*, *L1 cache*.

**LAN (local area network)** — A group of computers or other devices dispersed over a relatively limited area and connected by a communications link that enables any device to interact with any other on the network.

**liquid crystal display (LCD)** — A type of display that uses a liquid substance between two transparent electrode panels. When an electric current passes through the electrodes, the molecules in the liquid form a crystalline pattern that polarizes the light passing through it. A filter over the electrodes permits only non-polarized light to pass to the surface of the display, creating light and dark pixels.

**load** — To move information from a storage device (such as a hard disk) into memory for processing.

**local area network** — See *LAN*.

**logical drive** — A section of a disk that is recognized by the operating system as a separate disk drive. A system's logical drives may differ from its physical drives. For example, a single hard disk drive may be partitioned into two or more logical drives.

**M**

**megabyte (MB)** — A unit of data equal to 1,048,576 bytes (1024 x 1024 bytes). See also *bytes*.

**memory** — Typically refers to the computer's main memory, where programs are run and data is temporarily stored and processed. Memory can be volatile and hold data temporarily, such as RAM, or it can be nonvolatile and hold data permanently, such as ROM. A computer's main memory is RAM. See *RAM, ROM*.

**microprocessor** — See *central processing unit (CPU)*.

**MIDI (Musical Instrument Digital Interface)** — A standard for connecting musical instruments, synthesizers, and computers. The MIDI standard provides a way of translating music into a form computers can use, and vice versa.

**modem** — Short for “modulator/demodulator.” A device that converts information from digital to analog and back to digital, enabling information to pass back and forth between digital computers and analog telephone lines.

**motherboard** — The main circuit board in the computer. It contains the processor, memory, and other primary components.

**MS-DOS prompt** — See *system prompt*.

**multi-function drive** — A DVD drive that can read and write to CD and DVD media.

**multimedia** — A combination of two or more media, such as sound, animation, and video in a computer program or presentation.

**Musical Instrument Digital Interface** — See *MIDI*.

**N**

**network** — A collection of computers and associated devices that are connected by communications facilities. A network allows you to share data and peripheral devices, such as printers, with other users and to exchange electronic mail.

**non-interlaced** — A method of refreshing a computer screen, in which each pixel of every line is refreshed as the electron beam scans across and down the screen. Compare *interlaced*.

**non-system disk** — A disk for storing programs and data that cannot be used to start the computer. Compare *system disk*.

**NT file system (NTFS)** — An advanced file system designed for use specifically with the Windows NT operating system.

**O** **online** — Available through the computer. Online may refer to information being read from your own computer's hard disk, such as online documentation or online help, or to information coming from another company on a company network or the Internet.

**operating system** — A set of programs that controls how the computer works. Examples of operating systems are Windows® 98 Second Edition and Windows® 2000 operating systems.

**P** **palette** — See *color palette*.

**parallel** — Processes that occur simultaneously. In communications, it means the transmission of more than one bit of information at a time. On your computer, the parallel port provides a parallel communications interface between the computer and an appropriate device. Most modern printers are parallel. Compare *serial*.

**password** — A unique string of characters entered by a user to verify his or her identity to the computer or the network.

**PC Card** — A credit-card-sized expansion card designed to increase the capabilities of notebook computers. PC Cards provide functions such as modem, fax/modem, hard disk drive, network adapter, sound card, or SCSI adapter.

**peripheral** — Any device, such as a printer or joystick, that is attached to the computer and controlled by the computer's CPU.

**pixel** — Short for “picture element.” The smallest dot that can be produced on a screen or printer.

**Plug and Play** — Generally, refers to the computer's ability to automatically configure itself to work with peripheral devices. When capitalized, refers to a standard that, when followed by a device manufacturer, allows a PC to configure itself automatically to work with the device.

**pointing device** — Any device, such as the TouchPad or a mouse, that enables you to move the cursor on the screen.

**port** — A socket on the computer where you plug in a cable for connection to a network or a peripheral device.

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**processor** — See *central processing unit (CPU)*.

**program** — A set of instructions that can be executed by a computer.

The general classes of programs (also called software) are operating system, application, and utility. See also *operating system, application, utility*.

**properties** — The attributes of an object or device. For example, the properties of a file include the file's type, size, and creation date.

## R

**RAM (random access memory)** — Volatile memory that can be written to as well as read. By volatile, we mean that information in RAM is lost when you turn off your computer. This type of memory is used for your computer's main memory. See also *memory*. Compare *ROM*.

**random access memory** — See *RAM*.

**read-only memory** — See *ROM*.

**reboot** — See *boot, restart*.

**removable disk** — A disk that can be removed from a disk drive. A diskette is one example of a removable disk.

**resolution** — A measure of the sharpness of the images that can be produced by a printer or displayed on a screen. For a printer, resolution is expressed in dots per inch (dpi). For a screen, it is expressed as the number of pixels available horizontally and vertically.

**restart** — Synonymous with reboot. To reset the computer by reloading the operating system without turning the computer off. See also *boot*.

**RJ-11** — A modular connector used on most U.S. telephone systems and direct-connect modems. The RJ-11 connector is a 6-wire connector.

**RJ-45** — A connector used to attach computers to LANs (local area networks) and to link ISDN (Integrated Services Digital Network) devices to NT-1 (Network Terminator devices). Also called.

**ROM (read-only memory)** — Non-volatile memory that can be read but not written to. By non-volatile, we mean that information in ROM remains whether or not the computer is receiving power. This type of memory is used to store your computer's BIOS, which is essential instructions the computer reads when you start it up. See also *BIOS*, *memory*. Compare *RAM*.

**S** **select** — To highlight or otherwise specify text, data, or graphics with the intent to perform some operation on it.

**serial** — Processes that occur one at a time. In communications, it means the transmission of one bit at a time sequentially over a single channel. On your computer, the serial port provides a serial interface between the computer and an appropriate device. Compare *parallel*.

**shortcut** — See *keyboard shortcut*.

**software** — See *program*. Compare *hardware*.

**Standby** — A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.

**Suspend** — A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.

**system disk** — A diskette that contains the operating system files needed to start the computer. Any diskette can be formatted as a system disk. A system disk is also called a “bootable disk” or a “startup disk.” Compare *non-system disk*.

**system prompt** — The symbol (in the MS-DOS® operating system, generally a drive letter followed by a “greater than” sign) indicating where users are to enter commands.

**T** **TFT display** — See *active-matrix display*.

**U**

**universal serial bus (USB)** — A serial bus that supports a data transfer rate of up to 480 Mbps (480 million bits per second). USB can connect up to 127 peripheral devices through a single all-purpose USB port. USB allows hot swapping of peripherals. See also *bus*, *hot swapping*, *serial*.

**upload** — To send a file to another computer through a modem or network. See also *download*.

**USB** — See *universal serial bus (USB)*.

**utility** — A computer program designed to perform a narrowly focused operation or solve a specific problem. Utilities are often related to computer system management.

**W**

**Web** — See *World Wide Web*.

**World Wide Web (www)** — The worldwide network of Web sites linked together over the Internet. A user of the Web can jump from site to site regardless of the location of the computer hosting the site. See also *Internet*.

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